2004 CATS Interpretive Guide
Detailed Information On Using Your Score Reports

KENTUCKY DEPARTMENT OF EDUCATION
Gene Wilhoit, Commissioner

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2004 CATS Interpretive Guide

Detailed Information About How to Use Your Score Reports

Overview

This document gives detailed information on how to interpret and use the results provided by the Kentucky Core Content Test (KCCT), Writing Portfolio and Norm-Referenced Test of the Commonwealth Accountability Testing System (CATS) administered during the 2003-2004 school year. As required in statute, these reports are received by school districts 150 days after the first day of the last testing window.

Kentucky Performance Report:

- **Cover Page and Introduction** – The first page of the report provides some introductory comments from the Commissioner of Education as well as the school and district name and a table of contents. The second page gives a brief overview of the assessment system and is a good starting point for teachers new to Kentucky or anyone unfamiliar with testing in Kentucky.
- **Accountability Cycle 2004** – This page provides all the summary information pertaining to a school's accountability classification, including the growth chart unique to each school. The growth chart includes a Goal Line represented by a straight line that begins in 2000 at the baseline and ends in 2014 at 100 as well as an Assistance Line that begins in 2000 and ends in 2014 at 80.
- **Accountability Trend** – This page provides more detailed summary information relative to a school's accountability calculations for each year of the cycle, including academic indices for each content area, non-academic indicators, national norm-referenced test indices, the accountability index and the number of accountability students.
- **Disaggregation Index Trends, Academic Index** – This page provides detailed summary information for the academic index for each subpopulation of sufficient size from 1999 to 2004. Vertical bar charts present side-by-side, across-year comparisons of academic index trend data. This page of the report is new for 2004.
- **Content Area Index Trends** – One page that gives comparisons/trends across multiple years *within* each content area and the overall academic index. Horizontal bar charts are used in this presentation of the data and a separate page is provided for each level (i.e., elementary, middle and high school) if necessary.
- **Academic Index Comparisons** – One page that gives comparisons of school, district, and state academic indices for each content area and the overall academic index. Horizontal bar charts are used in this presentation of the data and a separate page is provided for each level (i.e., elementary, middle and high school) if necessary.
- **Trend Data, Number and Percent** – This page begins the "cluster" of reports for each content area. For a content area (e.g., reading), a single page gives horizontal bar charts for across-year comparisons of the percentage of students achieving Distinguished, Proficient, Apprentice (high, medium and low) and Novice (high, medium and non-performance).

- **Sub-Domain** – This is the second page of the "cluster" of reports for each content area. For a content area (e.g., reading), the school and state means for groups of items that measure each sub-domain are presented numerically and graphically. Mean item scores are calculated using both the open-response and multiple-choice questions together and are on the 0 to 4 open-response scale. A measure of standard error is provided in the graph.
- **Core Content -** The third page of the "cluster" of reports for each content area provides further detail on the performance of students by content area sub-domain and section for both multiple-choice and open-response questions. The same core content codes published in Kentucky's Core Content for Assessment are used on this report. Core content results for on-demand writing are also provided
- **Questionnaire Data** – The fourth page of the "cluster" of reports for each content area provides student questionnaire data relevant to the content area. All questionnaire information is based on students who actually answered the questionnaire and may not represent all students who took the test.
- **Disaggregation, Performance Level Percents** – The fifth page of the "cluster" of reports for each content area provides stacked bar charts presenting a side-by-side comparison of the percentage of students achieving Distinguished, Proficient, Apprentice and Novice for a subpopulation of sufficient size. The report features a table on the right-hand side of the page displaying the performance level percents. Disaggregation performance level results for on-demand writing are also provided.
- **Disaggregation Index Trends** – The sixth page of the "cluster" of reports for each content area provides detailed summary information for the content area academic index for each subpopulation of sufficient size from 1999 to 2004. Vertical bar charts present side-by-side, across-year comparisons of content area academic index trend data. This page of the report is new for 2004.
- **Mean Scale Score/Standard Deviation** – The seventh page of the "cluster" of reports for each content area provides descriptive statistics for scale scores. Scale score means and standard deviations (presented graphically as an interval) are given for a number of important student groups.
- **Scale Score Data Disaggregation** – On the eight page of the "cluster" of reports for each content area, scale score comparisons are provided for subpopulations. A standard error accompanies each scale score, differences between certain student groups (e.g., male vs. female, White vs. African-American) are calculated, and a test of statistical significance is given for each comparison. In addition, the academic index computed by student group is included on the report. (The data disaggregation page for writing presents performance level percents since scale scores are not computed for writing.)
- **National Norm-Referenced Test (NRT)** – This page provides the percentage of students assigned to each accountability weight (i.e., 0, 60, 100, 140) for the National Percentile ranges 1-24, 25-49, 50-74, and 75-99, respectively.
- **NRT Data Disaggregation** – For the state mandated components of the CTBS/5 Survey, important comparisons are provided for the same student groups given on other pages of the KPR.

Student Reports:

- **Individual Student Report** – The Individual Student Report informs students and parents about individual student performance on the Kentucky Core Content Tests. Student answers to open-response questions are evaluated on a scale of 0-4, with higher scores associated with more complete and accurate responses. Multiple-choice questions are given a raw score value of 1 for a correct answer and 0 for an incorrect answer. The main features of the Individual Student Report are the student's performance level (Novice non-performance, Novice medium, Novice high, Apprentice low, Apprentice medium, Apprentice high, Proficient, Distinguished), and Kentucky percentile ranking in each content area.
- **Student Listing** – The Student Listing report provides all the information in the Individual Student Report in a concise and convenient form. For each student and tested content area (reading, mathematics, science, social studies, arts and humanities, and practical living/vocational studies), the report lists the student's name and lithocode number (the student identification number for the current year of the assessment system), an indicator of any testing accommodations used by the student (when such accommodations were indicated on the Student Test Booklet), as well as the student's scale score, percentile rank and performance level. Scores of students exempted from accountability are not reported. The word "EXEMPTED" is printed in place of scores for these students. Performance levels are based on the student's responses to the entire test -- open-response and multiple-choice questions.
- **Item Level Report** – The Item Level Report gives each student's score for each question on the Kentucky Core Content Test. The results for the open-response items reflect how students scored on the 0-4 scale for each item. The multiple-choice items are displayed as correct, incorrect or blank. A single content area is reported per page to make individual content area analyses easier.

Formatting Used in the CATS Interpretative Guide

From this point on, text will be formatted with a wider left-hand margin to allow for easier reading and to give room for text boxes like this. Text boxes will generally be used to highlight important points and/or to give additional explanation.

Text in the remaining sections of the Interpretative Guide is formatted with a wider left margin. The purpose of this is to provide more "digestible" chunks of information and to give space for text boxes that highlight important points and/or give additional explanation. This change in format was introduced in last years CATS Interpretative Guide. Because we received positive feedback on this change in format, it is continued in the *2004 CATS Interpretative Guide*.

An introduction to CATS is presented in the next section, "The Commonwealth Accountability Testing System," followed by an overview of key components in "Measures and Indicators," "Kentucky Core Content Tests," "Kentucky Accountability Index," and "CATS Accountability System." An image of each KPR report page is provided and described in the "Explanation of Reports." Tables presenting performance-level cut scores and a glossary of key terms complete this guide.

The Commonwealth Accountability Testing System

The purpose of the Commonwealth Accountability Testing System (CATS) is to encourage and enable educators in each public school to increase the academic achievement of their students. Success in accomplishing this goal is measured by the Kentucky Accountability Index, a numeric composite reflecting student performance with reference to Kentucky Performance Standards -- Novice, Apprentice, Proficient and Distinguished -- the nationally norm-referenced test, and nonacademic indicators. Percentages of students scoring at each standard in reading, writing, mathematics, science, social studies, arts and humanities, practical living and vocational studies, at each tested grade in all Kentucky schools, are converted to a composite index used to reward successful schools and to identify schools in need of assistance.

Student performance is measured each spring using the Kentucky Core Content Tests (KCCT) as well as a nationally norm-referenced assessment. School and district results, including accountability indices, are published the following fall in the *Kentucky Performance Report.* This Interpretive Guide to the Kentucky Performance Report (KPR) is provided to assist educators in making the most effective use of their results. In addition, the *Student Data Tool*, a database program allowing schools to conduct supplementary analyses, along with a confidential file reflecting student-level assessment data, is provided to schools. More assessment resources are provided on the KDE website: http://www.education.ky.gov. On the main page, click on 'Testing and Reporting' in the left-hand column.

Together these resources afford Kentucky educators the opportunity to harness the considerable power of their assessment data to improve their schools and make progress toward the goal of Proficiency by 2014.

Resources for Kentucky Educators:

Kentucky Performance Report:
- Accountability Index
- KCCT
- NRT

2004 CATS Interpretive Guide:
- For the Kentucky Performance Report
- Background
- User Guidance

Student Data Tool

Web Resources

Getting Started to Study Your Data

Understanding CATS Data

Getting Started to Study:

- Understanding CATS data
- Organize your study

To correctly interpret and use educational measurement data, it is helpful to understand how it is generated. Many Kentucky educators have become familiar with the Commonwealth Accountability Testing System, the KCCT, the nationally norm-referenced test and nonacademic indicators over the past years. Those who are new to Kentucky education and those who wish to review the nuts and bolts of accountability will appreciate updated sections: 'Measures and Indicators,' 'Kentucky Core Content Tests,' 'CATS Accountability,' and 'Explanation of Reports' following this section.

Develop Frames For:

- Time
- Information
- Inquiry

The current subsection, 'Getting Started,' suggests one approach to the study of your school or district data. Organize your study by first developing frames for time, information, and inquiry. Frames make the contents, levels, and boundaries of your study more clear and explicit.

Time Frame

Identify Dimensions of Time Frame:

- When do people use assessment results?
- Who uses results?
- For what purposes?

School faculty, as well as school and district administrative staff, School Based Decision Making Councils, and Boards of Education will be interested in reviewing assessment results soon after they are published in the fall of each academic year. Results not only advise schools as to their accountability status, but inform ongoing instructional planning and the evaluation of programs, practices, and resources used during the preceding academic year. School staff will want to review school assessment results to guide development of their Comprehensive School Improvement Plans (CSIPs).

Each fall schools will want to review their previous results to assess their progress. The *Kentucky Performance Report* (KPR) presents many results as trends (results for multiple years). The table on the following page illustrates how KPR data might benefit users who have different purposes at three important points in time. You may identify other users and purposes. Examples provided in the table reflect the fact that school level CATS results are most useful when considered in junction with other school data.

Example Time Frame by Purpose and User			
User	**Fall 2004**	**Spring 2005**	**Fall 2005**
	Review 2004 Results:	**Develop and Refine CSIP:**	**Review 2005 Results:**
Faculty	• Consider in conjunction with achievement and other data. • Consider with respect to student groups.	• Set new core content area goals • Set professional development goals	• Review 2005 KCCT and NRT results and compare to Fall 2004
Administrators	• Review across content areas. • Consider other school factors • Reflect on results in context of total data picture. • Identify successes • Evaluate programs • Adjust on-going programs • Conduct needs assessment	• Consider in conjunction with results of self-study, review, audit	
SBDM Council	• Review 2004 school index and test results, comparing to 2003. • Develop action and implementation plans for 2004 – 2005. • Develop School and District Improvement Plans	• Revise CSIP to include response to achievement gap reduction results. • Finalize CSIP in order to submit budget.	• Review 2005 results and compare to selected 2004 results. • Develop action plan for 2005 – 2006 and compare to previous plan.

Identify Levels of Information Frame:

- Content Area
- Student Group

Also Consider:

- Content Area by Student Group

Information Frame

Recognize that CATS information, valuable as it is, cannot answer all your questions by itself. Know what it can tell you and what it cannot tell you. Broaden the scope of your information by considering other school-level information. If you are to use additional data in reviewing your school, you must plan ahead to collect it, for example, by administering a teacher survey in connection with development of your previous year Comprehensive School Improvement Plan.

Keep in mind that results of the Kentucky Core Content Tests and NRT provide information on two key dimensions: (1) content domains and sub-domains and (2) specific groups of students. Identification of content domains in which improved performance is needed, as well as of groups of students whose needs are to be addressed, is necessary to formulate any improvement plan. As you review your results, you might consider the following issues:

- Does your school need to address the curriculum as a whole, across Core Content domains? Or, do your concerns center on one or more specific domains? Which of the following best characterizes the needs you have identified – a specific content domain or all content domains?

- Does your school need to address the achievement of the student body as a whole? Is the achievement of all students far below the 2004 goal? Or, are specific groups of students trailing? Which of the following best characterizes your needs -- specific student sub-groups or all groups?

As you review your school or district results, the first step is to identify your needs in terms of content areas and student groups. For example, you may identify a need to focus on mathematics for all students, while at the same time determining the need to improve reading and language arts skills within a specific student subgroup. Once you have broadly identified your needs, you can take further steps to build a greater understanding of your students' needs (by using additional information such as grade-level achievement test results, classroom performance, analysis of student work, and teacher commentary) and then formulate ways to address them.

Broaden the Scope of Your Information to Include:

- Additional Assessment Information
- Qualitative Information

Using additional information will yield a more complete picture of school performance. The following list of examples is not exhaustive:

Additional Assessment Information by Year

- Core Content school and classroom assessment results
- Student work
- Classroom performance
- ACT, SAT, other standardized test data

Qualitative Information by Year

- Instructional program and resource information (e.g., new science program begun in 2001)
- Professional development
- Instructional time for specific content (science, math)
- Faculty survey results
- Student survey results
- Parent survey results

Record, integrate, and track your information.

Establish a way to record, integrate, track and easily review information collected from multiple sources over time. You might want to think in terms of a format to organize your supplementary information. The following table illustrates one of many possible approaches.

Sample Subject by Grade Level Results Tracking Sheet
Science Grade 7

Year	State Assessment	School Measures	Interventions	Feedback
Year 0 **2001 - 2002**	• KCCT proficiency level percentages overall and by student group • Scale scores by student group	• Weekly Tests • Unit Tests • Parent survey of math and science study at home • Other evaluations (e.g., student projects, pre-sentations)	• Special science program established	• Materials well received by staff • Optional computer reading packages for after-school work considered for purchase
Year I **2002 - 2003**	• KCCT proficiency level percentages overall and by student group • Scale scores by student group • Within-proficiency-level, average scale score • CTBS/5 sub-test scores from previous year	• Weekly Tests • Unit Tests • Parent Survey of math and science study at home	• Special science program continued • Extended class time for all students • Extra small-group work with teacher for Novices • Professional development for science teachers	• Teachers felt that after-school work was especially effective. Can tutors be identified for more students? • Parents of several students asked for guidance in helping their children at home.
Year II **2003 - 2004**	• Same as above	• Same as above	• Special science program continued • Extended science class time for all students continued • Extra small group reading with teacher for Novices • Apprentice students paired with Distinguished as peer tutors.	• Parents surveyed in Fall 2003 and Spring 2004

Inquiry Frame

Examine Your Questions

- Articulate your broad questions.
- What specific questions can be answered with assessment data?
- What specific questions require additional assessment and qualitative information?
- Do you have the additional information you need this year?
- Can you plan now to collect the information needed for use next year?

Articulate your questions and determine whether they can be addressed using CATS data alone. Some questions may need to be restated or refined in the course of your study. For example:

(1) Did the new science program (initiated in 2001-2002), teacher training (conducted in 2003), and increased classroom time (2003 - 2004) improve 7th-grade science performance in 2004?

(2) Might emphasis on 7th grade science negatively impact other content areas tested in 8th grade?

Questions regarding the relationship of school programs and interventions to CATS results cannot be addressed with CATS results alone. Other measures are necessary. Collecting relevant data using classroom assessments, teacher logs (e.g., amount of class time devoted to science vs. other content areas), records (amount of teacher training), and surveys (e.g., of parent involvement) is a step in the right direction. Schools position themselves to approach more complex questions such as (1) and (2) above, when they plan ahead and collect such data.

CATS Data:

- Academic Index
- Percentages at performance levels
- Average scale scores

Questions about changes in the academic indices, percentages of students at NAPD, and average scale scores can be addressed by studying CATS results.

- Did percentages of 7th grade science students scoring at higher performance-levels in 2004 increase over 2003? How much?
- Did students' mean science scale-scores increase from 2003 to 2004? How much?
- Did some groups of students move to higher performance levels in science while others did not?

Most Questions:

- Distances between points
- Differences between groups

Most questions about CATS academic indices, percentages, and average scale scores can be formulated as follows:

- ***Distances*** to annual/biennial data point, goal, cut score, or state average
- ***Between-group*** difference, trend, or pattern.

The following chart uses the above question types to organize *possible* questions based on the content of each page of the KPR. You might use this chart as a guide in your page-by-page walk through the KPR.

Important Questions by 2004 KPR Page		
KPR Page Title *(Description)*	**Distance to Annual/Biennial Data Point, Goal, Cut Score, or State Average**	**Between-Group Difference, Trend, or Pattern**
Accountability Cycle 2004: Growth Chart **Accountability Cycle 2004: Growth Table**	Since 2004 does mark the end of a biennium, there is a corresponding index point on the Growth Chart. Check your school's text message to see if your 2004 Accountability Index reached your 2004 goal point. Locate your annual 2004 school index and compare it to your 2003 annual school index? Does the 2004 index exceed or fall short of the 2003 index? By how much? How much growth do you need in the coming years to achieve your 2006 Biennial Index goal? How much growth do you need in the coming year to progress and stay on target to reach your 2006 goal? How close are you to your target novice reduction and dropout points?	
Accountability Trend *(Academic indices; data used in computation of Accountability Index)*		Distinguish content-areas in which progress over time is on track, from those in which it is not on track to reach proficiency in 2014. How would you characterize trends in each academic index? Slow, but steady growth? Rapid, steady growth? Bumpy? Flat? Negative? How would you characterize the trend in the NRT Index? Are you satisfied with your non-academic indicator results?

Important Questions by 2004 KPR Page		
KPR Page Title *(Description)*	**Distance to Annual/Biennial Data Point, Goal, Cut Score, or State Average**	**Between-Group Difference, Trend, or Pattern**
Disaggregation Index Trends *(Academic Index)*	How far is each student group's academic index from 100? Will each group be at 100 in 2014 at your current rate of growth? How much index growth per year will be needed for each student group to reach 100 by 2014?	How would you characterize the pattern of bars for each student group: Gradual positive increase? Uneven? Back and forth? Flat? Declining?
Content Area Index Trends *(Academic Index Comparisons)*	How far is each content area academic index from 100? Will you be at 100 in 2014 at your current rate of index growth? How much index growth per year will be needed to reach 100 by 2014?	How would you characterize the pattern of bars within Core Content Areas: Gradual positive increase? Uneven? Back and forth? Flat? Declining?
Academic Index Comparisons *(School to district and state)*	Compare to state average. However, keep in mind that the state average ***is not your goal***. Proficiency is your goal.	Has your position varied compared to the district or state or has it been about the same from year to year? In what content area(s) are you the strongest or weakest in comparison to your district? State?
Trend Data: Number and Percent *(Kentucky Core Content Performance Level Trends)*		Examine Bar Chart Patterns: What is the direction of the trend within each performance category? Do you see an overall reduction in Novice and Low Apprentice categories? An overall increase in Proficient and Distinguished categories? What about Medium and High Apprentice categories? (Note that writing, PLVS and AH use the medium level of the Novice and Apprentice performance levels.)

Important Questions by 2004 KPR Page		
KPR Page Title *(Description)*	**Distance to Annual/Biennial Data Point, Goal, Cut Score, or State Average**	**Between-Group Difference, Trend, or Pattern**
Sub-Domain *(Sub-Domain Item Mean Scores)*	Keep in mind that ***the state average is not your goal*****,** but does provide a meaningful reference point. How does your sub-domain means compare to state sub-domain mean scores? Do your means meet, exceed or fall short of the state average?	
Core Content *(Sub-Domain Section Item Scores)*	How far are your sub-domain sections scores from the state sub-domain section score? Note these sections. Review last year's Core Content report. In which sub-domain sections was your school mean lower than the state mean last year?	How are open-response scores distributed within sub-domains? How does your school distribution compare to state? How are multiple-choice scores distributed within sub-domains? How does distribution compare to state?
Student Questionnaire	Are there notable differences between the school and state percentages?	Do your results differ between years? How does observed student performance compare to students' perceptions of their performance?
Disaggregation Performance Level Percents *(Bar Charts)*		Which groups have the greatest percentage Novice (white area) and Apprentice (gray)?
Disaggregation Index Trends *(Academic Content Area Indices)*	For each academic content area index, how far is each student group from 100? Will each group be at 100 in 2014 at your current rate of growth? How much index growth per year will be needed for each student group to reach 100 by 2014?	For each academic content area index, how would you characterize the pattern of bars for each student group: Gradual positive increase? Uneven? Back and forth? Flat? Declining?

Important Questions by 2004 KPR Page		
KPR Page Title *(Description)*	**Distance to Annual/Biennial Data Point, Goal, Cut Score, or State Average**	**Between-Group Difference, Trend, or Pattern**
Mean Scale Score/SD *(Box & Whiskers)*	Which groups' averages are closest to the cut-score lines? How far (in terms of scale scores) must these groups move to reach the next cut-score? How far to reach the Proficient line? Which groups show the lowest scale-scores.	Are some students groups at your school omitted from the chart because they number fewer than 10?
Scale Score Data Disaggregation *(Group Differences: School, District, State)*		In which content areas does your school have statistically significant gaps, i.e., differences followed by asterisks? What size are the gaps in scale-score points at the school, district, and state levels? What are the gaps in terms of index scores? In what content areas are your school's gaps larger or smaller than those at the district or state levels?
NRT Accountability Data by Year *(Composite scores)*	Are NRT scores increasing each year in terms of percentages in the upper two percentile categories.	
NRT Data Disaggregation		What are the implications of NRT scores for reading, language, and math content areas? Are there **large gaps** between the disaggregated groups in terms of normal curve equivalents?

Measures and Indicators

CATS:

- KCCT
- NRT
- Non-Academic Indicators

Both academic content-based and non-academic measures are used in CATS. These measures include custom, criterion-referenced tests in reading, mathematics, science, social studies, arts and humanities, practical living/vocational studies and writing as well as a nationally norm-referenced test in mathematics and reading. Non-academic measures include attendance rate, retention rate, dropout rate and transition to adult life. (Note that transition to adult life data is collected in the fall of each year via a short survey completed by school personnel. Measures include the number of graduates planning to enter college, the military, or an alternative vocation.) The above multiple measures provide as complete a snapshot of schools as possible and communicate to schools the importance of each measure and indicator in terms of resources and instructional programs.

Writing Portfolio

As part of the assessment, students developed portfolios in writing. The "holistic" performance level scores submitted by teachers trained to evaluate portfolios are presented on the Individual Student Report, Student Listing and the Kentucky Performance Report. During the summer of 2004, the Kentucky Department of Education conducted a Writing Portfolio Audit at grades 4, 7 and 12. One hundred (100) schools throughout the state were selected to participate in the audit. Participating schools and their students are identified by a statement on the Individual Student Report and at the end of the Student Listing. The Writing Portfolio scores on these reports are the scores determined by the audit. Note that teachers assign the scores for schools *not* participating in the audit.

Accommodations and Modifications

Accommodations and modifications must be stipulated in the student's Individual Education Plan (IEP) or 504 and must have been used throughout the school year.

Kentucky's offers accommodated or modified assessment for students who qualify under 703 KAR 5:070. As per regulation the accommodation/ modification used in assessment must be stipulated in the student's Individual Education Plan (IEP) or 504 and must have been used with the student throughout the school year. For example, if a student's IEP allows a scribe during regular instruction, the student will be allowed to have a scribe for the statewide assessment. Other accommodations or modifications, when consistent with the normal on-going delivery of instruction, may include:

- Reading text in English
- Paraphrasing directions for tasks in English
- Oral word-for-word translation of text
- Use of technology
- Use of extended time
- Use of manipulatives
- Use of grammar or spell-checker.

Alternate Portfolio

The Alternate Portfolio Program allows students with profound disabilities to participate in the assessment.

Students who cannot participate in the regular curriculum, even with accommodations, are required to submit an alternate portfolio, designed to reflect the special curriculum of the students, most of whom have profound cognitive disabilities. With few exceptions, all students in Kentucky must participate in the regular assessment or the alternate portfolio. Only a small number of students qualify each year for an exemption from testing.

Testing Exemptions

Students can receive a medical exemption if certain criteria are met; however, the student's handicapping condition alone *cannot* be the basis of an exemption. A physician determines that the student cannot physically take the test or that participation would be harmful to the child. In 2004 foreign exchange students were also exempt from the statewide assessment. All together, less than one percent of students statewide are exempted each year from Kentucky's assessment program.

Spring Testing and the Accountability Index

Beginning this year, schools are held accountable for students enrolled one hundred *instructional* days (not necessarily consecutive) in a school.

All testing is completed in the spring of each year, including the administration of a norm-referenced test (CTBS/5 Survey Edition) in grades 3 (end of primary), 6 and 9. In previous years, schools were held accountable for students enrolled on the first day of the testing window. Beginning this year, schools are held accountable for students enrolled one hundred (100) *instructional* days (not necessarily consecutive) in a school, from the first day of school to the first day of testing window. This change was implemented so the state could be in compliance with federal regulation under NCLB. For more information about NCLB, see the *2004 NCLB Interpretative Guide* available on the Department's website at http://www.education.ky.gov.

Recall that the CATS goal for every school in the state is Proficiency as defined by the Kentucky Board of Education. This goal of Proficiency translates into a school Accountability Index value of 100 (i.e., the goal for the state is for each school to achieve an accountability index of 100 by 2014). Each of the

measures mentioned above are combined into a composite to obtain a school's Accountability Index.

Kentucky Core Content Test

Kentucky Core Content Test results contribute most to the school accountability index.

The measurement that contributes most to the calculation of a school's accountability index is the Kentucky Core Content Test (KCCT). The table on the following page summarizes the grades and content areas tested by the Kentucky Core Content Test, including the number of open-response and multiple-choice questions asked on each of six (6) forms of the KCCT (12 forms each for arts and humanities and practical living/vocational studies). At all grade levels where reading, mathematics, science and social studies are tested, seven open-response and twenty-eight multiple-choice questions are given to each student (one open-response and four multiple-choice questions are pre-test questions and are not included in student scores or school accountability calculations). At the grade levels where arts and humanities and practical living/vocational studies are administered, three open-response and twelve multiple-choice questions are given to each student (one open-response and four multiple-choice questions are pretest questions and are not included in student scores or school accountability calculations).

Reading, math, science, social studies:

6 forms x 6 items = 36 OR
6 forms x 24 items = 144 MC

Arts & Humanities, Practical Living/ Vocational Studies:

12 forms x 2 items = 24 OR
12 forms x 8 items = 96 MC

Because there are six forms of the test and the forms generally do not overlap[1], this means that for accountability purposes there are 36 open-response items and 144 multiple-choice items administered per grade level/content area for reading, mathematics, science and social studies. For arts and humanities and practical living/vocational studies, there are 24 open-response items and 96 multiple-choice items administered per grade level/content area because there are 12 non-overlapping forms of the test. Note that both multiple-choice and open response scores in each content area are included in school accountability calculations. Finally, students at grades 4, 7 and 12 select and respond to one of two on-demand writing prompts offered during the test.

[1] Four multiple-choice items and one open-response item overlap across adjacent forms of the KCCT. The overlapping items across forms are used in the current year forms equating. Because of the overlapping items, at a single grade level for a content area, there are 30 unique open-response items and 120 unique multiple-choice items.

2003 – 2004 Assessment Components Number of Test Items by Core Content and Grade									
Kentucky Core Content Test								**Portfolio**	
Grade	**Reading**	**Math**	**Science**	**Social Studies**	**On-Demand Writing**	**Arts & Hum**	**PL/VS**	**Writing**	**Alt Portfolio***
4	6 OR* 24 MC*		6 OR 24 MC		X*			X	X
5		6 OR 24 MC		6 OR 24 MC		2 OR 8 MC	2 OR 8 MC		
7	6 OR 24 MC		6 OR 24 MC		X			X	
8		6 OR 24 MC		6 OR 24 MC		2 OR 8 MC	2 OR 8 MC		X
10	6 OR 24 MC						2 OR 8 MC		
11		6 OR 24 MC	6 OR 24 MC	6 OR 24 MC		2 OR 8 MC			
12					X			X	X

Note: Number of test items excludes pre-test items.
*OR denotes Open Response; MC denotes Multiple Choice; "X" denotes On-Demand Writing or Writing Portfolio; "Alt Portfolio" denotes submission of the Alternative Portfolio.

Open-response items are scored on a 0 to 4 scale for each item. For example, an off-topic response to an open-response item would receive a 0. Students must respond with some relevant information that is above and beyond merely restating the question to receive a score above 0. An outstanding response to an open-response item, one that is correct, thorough and well communicated, would receive a higher score, perhaps a 3 or a 4. Each open-response item has its own unique scoring rubric. The Department's scoring contractor trains professional scorers to score all the open-response items on the KCCT. It takes hundreds of scorers more than two months to score the tens of thousands of student responses obtained each year from the administration of the KCCT.

In Kentucky, open-response (OR) items are very important to the statewide assessment because Proficient and Distinguished performance across OR items depends on students having received high-quality instruction encouraged by the state. While students who score mostly 3s and 4s on the open-response items within a content area have a higher probability of scoring a Proficient or Distinguished within that content area, *the item scores of 1, 2, 3 and 4 DO NOT correspond to Novice, Apprentice, Proficient and Distinguished (N, A, P and D), respectively*. During standard setting, cut-scores for N, A, P and D were obtained from teacher's judgments of the *totality* of a student's work, or from reviewing

numerous test items provided in sequential order. A score of 4 on one item in a KCCT content area does not lead to a Distinguished performance level by itself.

Larger numbers of test items lead to higher reliability.

The KCCT also has multiple-choice items that are scored as correct or incorrect. Multiple-choice items were added to the KCCT to increase the breadth of coverage of the content domain and to increase the reliability of scores within a content area. The same Kentucky teachers (Content Advisory Committee) that help develop the open-response items for the KCCT also help develop the multiple-choice items. In fact, the same item-development procedures are followed for both types of item formats. For example, the same rules for strict adherence to the *Core Content for Assessment* are followed. Because of this, the multiple-choice items on the KCCT have different characteristics than the multiple-choice items on a nationally norm-referenced test.

Thus far, the only KCCT characteristics mentioned have related to test format (e.g., the KCCT has multiple forms) and item type (open-response vs. multiple-choice items). In addition, the only scoring mentioned thus far relates to simple item raw scores. According to a scoring rubric, a student can get a raw score of 0, 1, 2, 3 or 4 on an open-response item and a 1 or a 0 (i.e., correct or incorrect) on a multiple-choice item. In the next section the discussion centers on how you can actually go from simple raw scores to an accountability index that summarizes a school's progress toward the state's goal of Proficiency.

Kentucky's Accountability Index

Four Steps to Kentucky Accountability Index:

- Raw scores give rise to scale scores;
- Scale scores define performance level scores (NAPDs);
- Performance scores are weighted and combined;
- Content area scores are weighted and combined with the Non-Academic data and NRT.

The CATS goal for every school in the state is Proficiency as defined by the Kentucky Board of Education. The goal of Proficiency translates into a school accountability index value of 100. More specifically, the goal for the state is for each school to achieve an accountability index of at least 100 by 2014. In the CATS Accountability Model discussed in a later section, intermediate targets that will eventually take a school to the goal of 100 are set biennially, or every two years starting in 2002. As such, there are seven biennia or accountability cycles between 2002 and 2014 (i.e., 2002, 2004, 2006, 2008, 2010, 2012 and 2014) as well as recognition points. The major characteristics of the accountability model are that it involves (a) an index, (b) a measure of growth between successive cohorts (groups of students at the same grade, but in different years) (c) criteria that are applicable to the whole school (d) differential weighting of indicators and (e) recognition points -- an indication of absolute standing against Kentucky's performance standards.

With respect to the CATS Accountability Model, the previously discussed indicators are combined to create an accountability index that is unique to each school. The progression of how this happens begins with simple number-correct raw scores and ends with an accountability index that summarizes a school's progress toward the state's goal of Proficiency. To state this progression in one sentence, raw scores give rise to scale scores, scale scores have been related to Novice, Apprentice, Proficient and Distinguished (NAPD) performance levels (via standard setting and cut-scores), NAPDs get weighted numerically and combined within each content area, the content areas are weighted and combined to form a school's academic index, and finally, the academic index is combined with the norm-referenced test (NRT) and non-academic factors to generate the accountability index. This progression is summarized in the box below:

Raw Scores → Scale Scores → Cut Scores/NAPD →

NAPDs Weighted → Content Areas Combined for Academic Index →

Non-academic Data and NRT Added → Accountability Index

The following 4 steps describe this process in more detail.

Step 1 - Raw Scores Give Rise to Scale Scores

Raw scores are the simplest scores to understand because they have the most direct connection to the actual questions on a test. Multiple choice items are either right or wrong – scored 0 or 1. In the case of open-response questions, there is a range of increasingly better answers worth from 0 to 4 raw score points. The KCCT also adds up all the correct responses within a content area for each student and provides a number correct raw score that summarizes the student's performance. For example, for the content areas of reading, mathematics, science and social studies:

- 6 open-response items (each scored 0-4) give a possible raw score range of 0 to 24.
- 24 multiple-choice items (each scored 0-1) give a possible raw score range of 0 to 24.

Say Student 1 scores:

- 17 open-response points (out of 24) and 16 multiple-choice items correct (out of 24).

- 17 open-response points (out of 24) are **weighted double**, so: 17 X 2 = 34; 16 multiple-choice items correct (out of 24) are weighted only once, so: 16 X 1 = 16.

Add 34 and 16 together (i.e., 34 + 16 = 50) and you have Student 1's raw score.

For reading, mathematics, science and social studies the possible raw score range goes from 0 to 72 because open-response items are weighted double in CATS. (Recall that open-response items better model the type of instructional strategies the state would like to see in Kentucky classrooms.) As such:

- Open-response items can equal up to 48 raw score points
- Multiple-choice items can equal up to 24 raw score points
- 48 + 24 = 72 possible raw score points.

Similarly, for the content areas of arts and humanities and practical living/vocational studies:

- 2 open-response items (each scored 0-4) gives a possible raw score range of 0 to 8.
- 8 multiple-choice items (each scored 0-1) gives a possible raw score range of 0 to 8.

Say Student 2 scores:

- 6 open-response points (out of 8) and 7 multiple-choice items correct (out of 8).
- 6 open-response points (out of 8) is weighted double, so:6 X 2 = 12. 7 multiple-choice items correct (out of 8) is weighted only once, so: 7 X 1 = 7.

Add 12 and 7 together (i.e., 12 + 7 = 19) and you have Student 2's raw score.

For arts and humanities and practical living/vocational studies the possible raw score range goes from 0 to 24 because open-response items are weighted double in CATS. As such:

- Open-response items can equal up to 16 raw score points
- Multiple-choice items can equal up to 8 raw score points
- 16 + 8 = 24 possible raw score points for these *two* content areas.

It is necessary to have multiple forms of the KCCT to cover the breadth of the Core Content for Assessment at each school level. The question then becomes, how do I know one form of the test isn't more or less fair than another form? Also, how do you

combine all of the different forms administered into one thing that makes sense? The answer to these questions is Item Response Theory. The use of Item Response Theory (IRT) is by no means unique to Kentucky. In fact, Kentucky's use of this technology is a very standard one. The following example demonstrates why scale scores are so important for "leveling the playing field" across forms on the Kentucky Core Content Test:

Student	Raw Score	Form	Scale Score
1	50	Form 1	586
2	50	Form 6	583
3	50	Form 1	586
4	69	Form 1	691
5	65	Form 2	657
6	38	Form 4	536
7	39	Form 3	536
8	70	Form 3	680

Raw score (based on number correct) and corresponding scale scores for eight students who each took one of the six forms in a content area of the KCCT are presented above. Inspection of this data reveals several observations. First, the same raw score on a different form can, and usually will, generate a different scale score. Raw scores are converted to scale scores to address the minor differences in difficulty among the six test forms. So while students 1 and 2 each obtained a raw score of 50, student 1 received a few more scale score points than student 2 (i.e., 586 vs. 583) because Form 1 was slightly more difficult than Form 6 at this particular point of the scale score range. Note how this did not put student 2 (the student that took Form 6) at a disadvantage because the student had an equal opportunity to score a 583 on any form of the test. Had the student taken Form 1, because this Form is slightly more difficult than Form 6, the student probably would have scored a few raw score points lower than 50.

Item Response Theory statistical procedures transform raw test scores into scale scores. This approach takes item difficulty into account and ensures fairness across test forms.

Similar to the above observation, note the difference between students 6 and 7. These two students received the same scale score (i.e., 536) but different raw scores. Student 7 received a raw score of 39, one point higher than student 6 who received a raw score of 38. Had student 7 taken Form 4, Item Response Theory would predict that this student would receive a raw score of 38 (one point less than with Form 3) because this student's score in scale units is 536. The main point from these two examples is that there are minor differences in difficulty among the six forms of the test, but *scale scores produced on different forms mean the same thing*. Two students who receive the same scale score at the same grade level in the same content area are said to perform at the same level, regardless of the form they took.

As previously stated in the Measures and Indicators section, there are multiple forms of the test for each grade level and content area assessed and the forms generally do not overlap. To compensate for small differences in difficulty among forms, and to bring all forms of a test for a grade level and content area onto the same scale, Item Response Theory is used. As such the underlying scale for the KCCT is not number-correct raw score, but rather a continuous scale ranging from approximately 325 to 800.

Step 2 - Scale Scores Have Been Related to Performance Levels

It can be argued that the heart and soul of CATS is the four performance levels used to describe the quality of student work. The four levels, from lowest to highest, are Novice, Apprentice, Proficient and Distinguished or NAPD. During the standard setting process these four performance levels were related to, or mapped onto, the range of scale scores for each grade level and content area test. In addition, beginning in 1999, the first two levels of performance in reading, mathematics, science and social studies were each subdivided into three levels (Novice non-performance, Novice medium, Novice high, Apprentice low, Apprentice medium and Apprentice high) to better represent student performance and to recognize growth within the performance levels.

Step 3 - NAPDs Get Weighted Numerically and Combined

Students taking a test in a particular content area are assigned to one of eight performance levels. This is the official "score" that gets reported for the student. For example, a fourth grade student might receive an Apprentice in reading and a Proficient in science. For reporting in the aggregate and for accountability purposes only, the following conversion table is used for transforming NAPDs into a numerical scale that ranges from 0 to 140:

Performance Level	Weight
Novice Non-performance	0
Novice Medium	13
Novice High	26
Apprentice Low	40
Apprentice Medium	60
Apprentice High	80
Proficient	100
Distinguished	140

Novice and Apprentice levels of performance are *not* divided into three sublevels in writing, arts and humanities and practical living/vocational studies. Novice is assigned a weight of 13 and Apprentice 60.

Note that the content areas of writing, arts and humanities and practical living/vocational studies use the medium category of Novice and Apprentice, 13 and 60, respectively. For these content areas, the Novice and Apprentice levels of performance are *not* subdivided into three levels.

If the following distribution (or percentages) were obtained by fourth graders administered the reading test in a particular school, the calculations would be:

Performance Level	Weight	Percentage	Calculation	Weighted Score
Novice Non-Perf.	0	05%	0 X .05	0.0
Novice Medium	13	10%	13 X .10	1.3
Novice High	26	15%	26 X .15	3.9
Apprentice Low	40	20%	40 X .20	8.0
Apprentice Medium	60	25%	60 X .25	15.0
Apprentice High	80	15%	80 X .15	12.0
Proficient	100	08%	100 X .08	8.0
Distinguished	140	02%	140 X .02	2.8
Content Area Academic Index				**51.0**

As demonstrated in the above table, the weights for the NAPDs are multiplied by the percentage (or rather the proportion) of students at each performance level. These weighted percentages are then added together to give the content area index. The resulting content area index for fourth grade reading in this school is 51.0. The same procedure is used for calculating the "academic" index for each content area. Note the direct connection between the performance levels and the content area academic index. If every fourth grade student in the school had scored Proficient (i.e., the state goal) on the reading test, the school reading index would be 100 (or at the state goal). As seen in the next step, this connection is maintained all the way through to a school's weighted accountability index.

Step 4 - Content Areas Get Weighted and Combined With the Non-Academic Data and NRT

Once an academic index has been calculated for all content area tests administered within a school, the school's Accountability Index for a particular year can then be determined. The weights used to calculate a school's index vary slightly depending upon whether the school is an elementary, middle or high school. The following formula reflects the weighting of components at the *high school* level (elementary and middle schools have different weights).

Given the following definition of terms in the formula:

RD = Reading	AH = Arts & Humanities
MA = Mathematics	PL = PL/VS
SC = Science	WR = Writing
SS = Social Studies	NA = Non-academic

NRT = CTBS Survey

To calculate the Accountability Index for a given year:

Accountability Index	=	**.95 X [(RD X .15) + (MA X .15) + (SC X .15) + (SS X .15) + (WR X .15) + (AH X .075) + (PL X .075) + (NA X .10)] + .05 X (NRT)**

The weights used for calculating an Accountability Index sum to one. In the above formula, the weights within the brackets add to one but are then multiplied by .95. The NRT component of the assessment (CTBS5/Survey) makes-up the remaining 5%. (While the combination of weights could have been multiplied out (e.g., .95 X .15 = .1425), the above formula helps to show the content area weights before the NRT is added).

At the high school level, the non-academic component (denoted NA in the formula in the box above) is weighted 10% and is comprised of the following components with the following weights (refer to the Non-Academic Data Report Guidelines for more detail regarding non-academic data):

Non-Academic Index (10%)	
Attendance Rate	2.00%
Retention Rate	0.50%
Dropout Rate	3.75%
Successful Transition to Adult Life	3.75%

The NRT component is based upon the CTBS/5 Survey (state required components) Total Battery National Percentile. Students are assigned a score based upon the following percentile ranges:

Score	National Percentile
0	1 - 24
60	25 - 49
100	50 - 74
140	75 - 99

The "index" for the NRT is the mean of the assigned student scores. Note that the assignment of such scores puts the NRT onto the 0 to 140 scale similar to the other content areas. As previously mentioned, the mean score on this new scale is then weighted 5%.

CATS Accountability Model

Biennial means two years. Accountability Index calculations have to be performed for both years of the baseline and for both years of the sub-sequent target years.

The above formula, or weighted composite, for the Accountability Index is for one year only. Recall that the intermediate targets which will eventually take a school to the goal of 100 are set biennially, or every two years. In other words, the above Accountability Index calculations have to be performed for both years of the baseline and both years of the subsequent target years. The CATS Accountability baseline[2] index is the arithmetic mean of the Accountability Index for 1999 and for 2000, i.e., (1999 Index + 2000 Index)/2. In the same way, the growth index for the CATS Accountability Cycle ending in 2002 is the arithmetic mean of the Accountability Index for 2001 and for 2002, or (2001 Index + 2002 Index)/2. The growth index for the Accountability Cycle ending in 2004 is the arithmetic mean of the Accountability Index for 2003 and for 2004, or (2003 Index + 2004 Index)/2. The growth indices for the remaining 5 biennia or Accountability Cycles are calculated in the same way.

Remember that the CATS goal for all schools is to reach Proficiency, or a growth index of 100, by 2014. The interim targets established for each two-year Accountability Cycle beginning in 2002 and ending in 2014 represent a requirement that achievement improve by a set amount each year. Along these lines, each school has its own unique set of growth targets. Growth targets are calculated using the following formulas:

For 2002: (((100-baseline)/7) X 1) + baseline
For 2004: (((100-baseline)/7) X 2) + baseline
For 2006: (((100-baseline)/7) X 3) + baseline
For 2008: (((100-baseline)/7) X 4) + baseline
For 2010: (((100-baseline)/7) X 5) + baseline
For 2012: (((100-baseline)/7) X 6) + baseline
For 2014: (((100-baseline)/7) X 7) + baseline

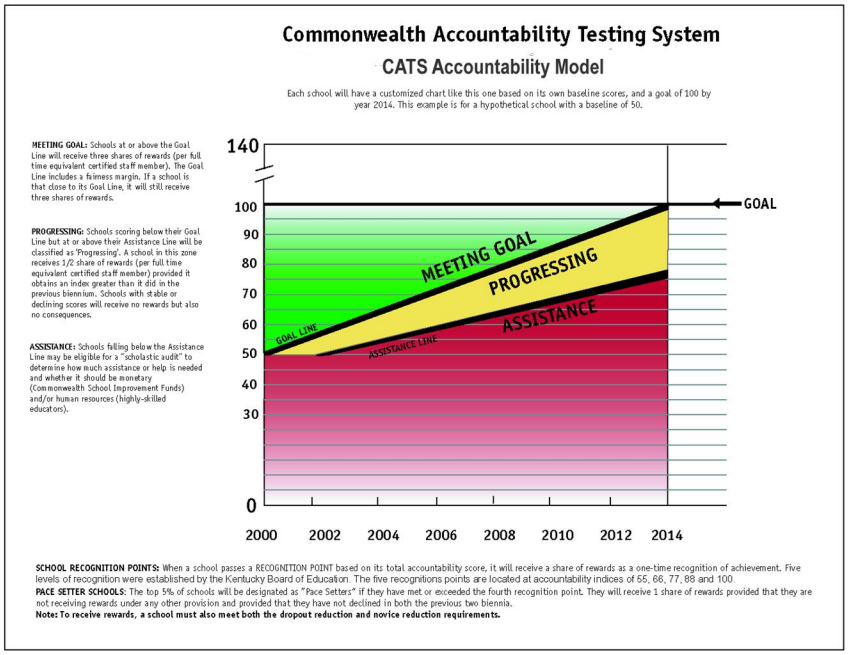
[2] For reconfigured schools, the baseline may be established in later years as provided for in 703 KAR 5:020.

For example, given a baseline index of 51, the calculations would be:

For 2002: (((100-51)/7) X 1) + 51 = 58
For 2004: (((100-51)/7) X 2) + 51 = 65
For 2006: (((100-51)/7) X 3) + 51 = 72
For 2008: (((100-51)/7) X 4) + 51 = 79
For 2010: (((100-51)/7) X 5) + 51 = 86
For 2012: (((100-51)/7) X 6) + 51 = 93
For 2014: (((100-51)/7) X 7) + 51 = 100.

In this example, the school's growth index in Accountability Cycle 2002 would be compared to the growth target of 58. Similarly, the school's growth index in Accountability Cycle 2004 would be compared to the growth target of 65, and so on. The presentation of a school's growth targets is simplified by presenting them in the following graphic. Note that in this example, the growth targets are based upon a baseline index of 50.

CATS Accountability Growth Chart



The following summarize some important points about the growth chart and several other features of the Accountability Model:

- The Goal Line represents the point above which schools become eligible for rewards. Notice how it is represented by a straight line that begins in 2000 at the baseline and ends in 2014 at 100.

- The Assistance Line represents the point below which a school becomes eligible for assistance from the state. A straight line that begins in 2002 at the baseline and ends in 2014 at 80 represents this line.
- Both of the above lines (Goal and Assistance Lines) have a standard error associated with the line that ranges from approximately 0.5 to 3.0 depending upon school size and level (elementary, middle and high school). In this example the standard error is represented by the thickness of the line.
- Schools between the Goal Line and the Assistance Line are considered Progressing and are held harmless in the accountability system.
- For a school to be eligible for rewards, it must also meet the Novice reduction and dropout criteria. With regard to Novice reduction, schools must reduce their percent of Novices on a schedule so that by 2014, the school has 5% or less of its students scoring as Novice. With regard to the dropout criteria, high schools must have a dropout rate less than or equal to 5.3%, or reduce their percent dropout by 0.5%, but still have a dropout rate less than or equal to 6.0%.
- The CATS Accountability Model has provisions for establishing a set of one-time Recognition points (55, 66, 77, 88, and 100) and defines a "Pace Setter" school as one of the top 5% of schools, which has also met the 4th recognition point and drop-out and novice reduction requirements.

Other important considerations regarding the CATS Accountability Model include:

- Two years of data are combined to form both the baseline and the growth indices. Combining two years of data addresses some of the stability issues related to estimating the achievement for small schools.
- Results from administrations of the assessment using accommodations and modifications are included in accountability calculations in the same way as results from administrations not using accommodations and modifications.
- Schools that do not include accountability grades are held accountable through the performance judgment assigned to the schools into which they feed.
- The four non-academic components (i.e., attendance, retention, dropout and successful transition to adult life) are each put onto a 0 to 100 scale. More specifically, the values for attendance and successful transition to adult life are the actual percentages reported, whereas the values entered into calculations for retention and dropout are 100 minus the actual percentage calculated.

As a final note, results from the Alternate Portfolio, Kentucky's means of assessing the instruction provided to students with significant disabilities, are scored using the same performance levels as the content area tests (i.e., NAPD). An Alternate Portfolio is submitted only once at the elementary level, once at the middle school level, and once at the high school level. *At each of these levels, a student's performance level (N, A, P or D) weight contributes to all content areas*. For example, if an Alternate Portfolio student receives a Proficient, for calculation purposes, it is as if the student received a Proficient (weight of 100) in all content areas of the assessment at the grade level. In this way, Alternate Portfolio students contribute the same amount to accountability as any other regular education student, although that contribution happens within one calendar year and not across several years (e.g., fourth and fifth grade or seventh and eighth grade).

Explanation of Reports

Explanation of Reports

KPR

- Cover Page & Intro.
- Accountability Cycle 2004
- Disaggregation Index Trends
- Content Area Index Trends
- Academic Index Comparisons
- Cluster of Eight (8) Content Domain Reports
- NRT
- NRT Disaggregation

Individual

- Individual Student
- Student Listing
- Item Level

This section provides detailed information on the interpretation and use of the October 2004 assessment and accountability results provided by the Kentucky Department of Education. Results presented in these reports are based on data collected from many sources: students, schools, district offices, the Kentucky Department of Education and testing contractors.

Most of the report pages discussed below are part of the Kentucky Performance Report (KPR). The KPR is designed to show performance for all content areas at the elementary, middle and high school levels. Most school and all district reports will contain data from at least two different grades (e.g., grades 4 and 5 at the elementary level).

Note that school staff must review the data on the "Student Listing" report to ensure that all students who tested last spring are represented accurately on the reports. Schools have 14 days following official public release of data to report discrepancies by submitting a letter to the Commissioner of Education. If your school/district has concerns about the data, please contact KDE, Division of Assessment Implementation at 502/564-4394. The Kentucky Department of Education will explain the procedures and assist you in correcting the data to ensure accurate school Academic and Accountability Indices.

Explanation of Reports

KPR

- ***Cover Page & Intro.***
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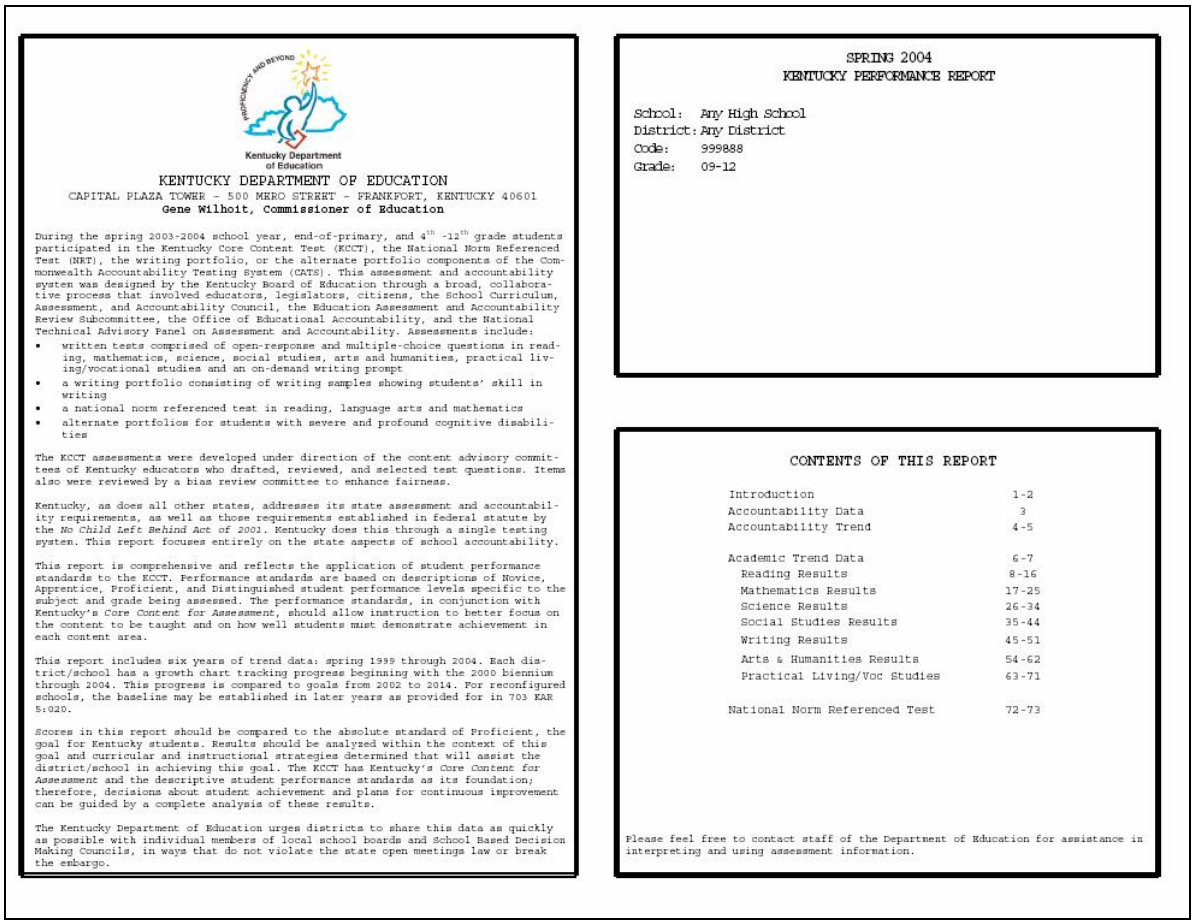
Cover Page and Introduction

The first page of the Kentucky Performance Report (KPR) provides some introductory comments from the Commissioner of Education as well as the school and district name, school code, grade-range covered in the report and a table of contents. The Commissioner's statement generally includes commentary on important policies related to assessment and accountability in Kentucky. For example, the inclusion of Kentucky teachers in test development, the value of performance standards to instruction, and the goal of 100, or Proficiency by 2014.

The second page of the KPR gives a brief overview of the assessment system and is a good starting point for new teachers or anyone unfamiliar with testing in Kentucky. Some of the topics introduced on this page include the content areas tested at each grade level, the number of multiple-choice and open-response questions assessed in each content area and their respective weights in school accountability, and the particular students for whom a school is held accountable. The first two pages of the KPR are presented below and on the following page.



Kentucky Department of Education

KENTUCKY DEPARTMENT OF EDUCATION
CAPITAL PLAZA TOWER - 500 MERO STREET - FRANKFORT, KENTUCKY 40601
Gene Wilhoit, Commissioner of Education

During the spring 2003-2004 school year, end-of-primary, and 4th -12th grade students participated in the Kentucky Core Content Test (KCCT), the National Norm Referenced Test (NRT), the writing portfolio, or the alternate portfolio components of the Commonwealth Accountability Testing System (CATS). This assessment and accountability system was designed by the Kentucky Board of Education through a broad, collaborative process that involved educators, legislators, citizens, the School Curriculum, Assessment, and Accountability Council, the Education Assessment and Accountability Review Subcommittee, the Office of Educational Accountability, and the National Technical Advisory Panel on Assessment and Accountability. Assessments include:

- written tests comprised of open-response and multiple-choice questions in reading, mathematics, science, social studies, arts and humanities, practical living/vocational studies and an on-demand writing prompt
- a writing portfolio consisting of writing samples showing students' skill in writing
- a national norm referenced test in reading, language arts and mathematics
- alternate portfolios for students with severe and profound cognitive disabilities

The KCCT assessments were developed under direction of the content advisory committees of Kentucky educators who drafted, reviewed, and selected test questions. Items also were reviewed by a bias review committee to enhance fairness.

Kentucky, as does all other states, addresses its state assessment and accountability requirements, as well as those requirements established in federal statute by the *No Child Left Behind Act of 2001*. Kentucky does this through a single testing system. This report focuses entirely on the state aspects of school accountability.

This report is comprehensive and reflects the application of student performance standards to the KCCT. Performance standards are based on descriptions of Novice, Apprentice, Proficient, and Distinguished student performance levels specific to the subject and grade being assessed. The performance standards, in conjunction with Kentucky's Core Content for Assessment, should allow instruction to better focus on the content to be taught and on how well students must demonstrate achievement in each content area.

This report includes six years of trend data: spring 1999 through 2004. Each district/school has a growth chart tracking progress beginning with the 2000 biennium through 2004. This progress is compared to goals from 2002 to 2014. For reconfigured schools, the baseline may be established in later years as provided for in 703 KAR 5:020.

Scores in this report should be compared to the absolute standard of Proficient, the goal for Kentucky students. Results should be analyzed within the context of this goal and curricular and instructional strategies determined that will assist the district/school in achieving this goal. The KCCT has Kentucky's Core Content for Assessment and the descriptive student performance standards as its foundation; therefore, decisions about student achievement and plans for continuous improvement can be guided by a complete analysis of these results.

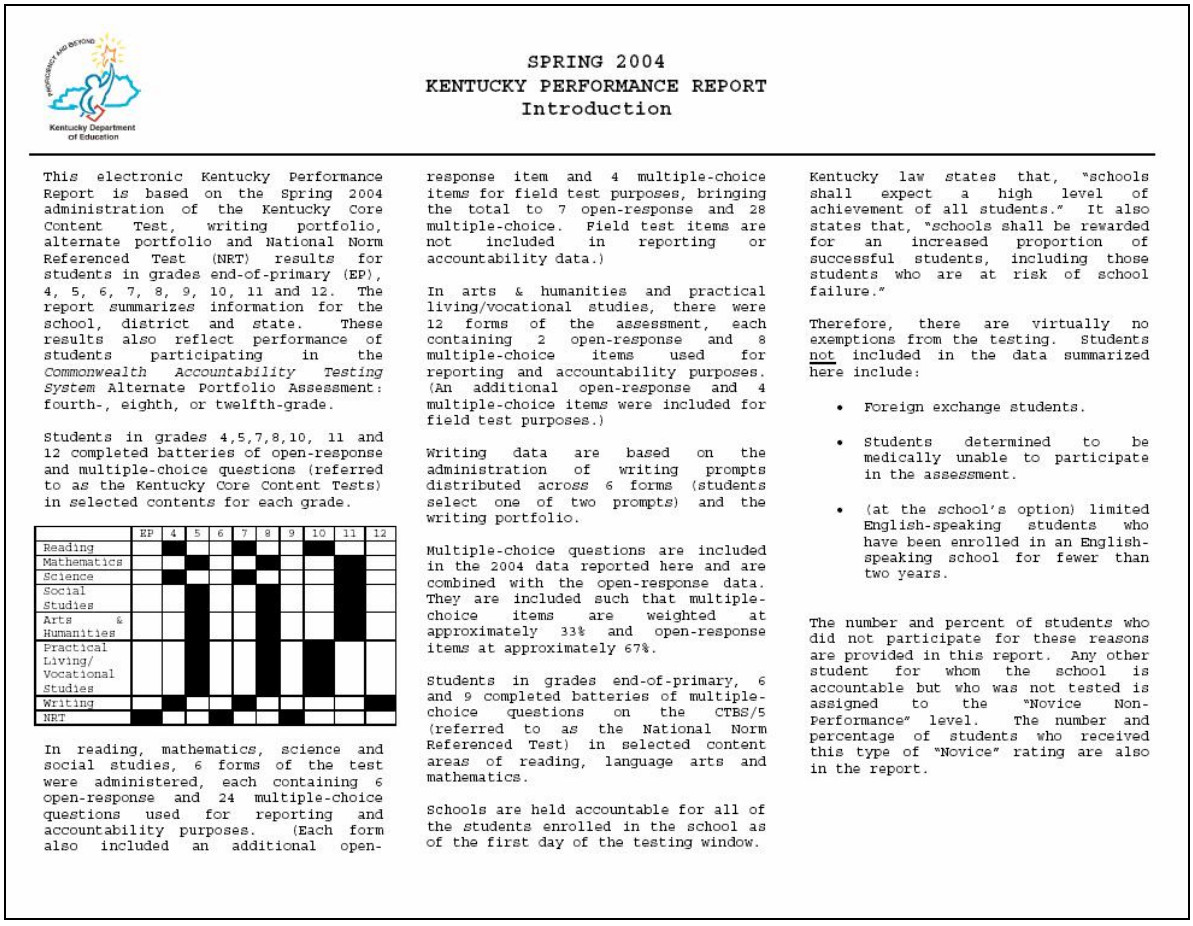
The Kentucky Department of Education urges districts to share this data as quickly as possible with individual members of local school boards and School Based Decision Making Councils, in ways that do not violate the state open meetings law or break the embargo.

SPRING 2004
KENTUCKY PERFORMANCE REPORT

School: Any High School
District: Any District
Code: 999888
Grade: 09-12

CONTENTS OF THIS REPORT

Please feel free to contact staff of the Department of Education for assistance in interpreting and using assessment information.



SPRING 2004
KENTUCKY PERFORMANCE REPORT
Introduction

This electronic Kentucky Performance Report is based on the Spring 2004 administration of the Kentucky Core Content Test, writing portfolio, alternate portfolio and National Norm Referenced Test (NRT) results for students in grades end-of-primary (EP), 4, 5, 6, 7, 8, 9, 10, 11 and 12. The report summarizes information for the school, district and state. These results also reflect performance of students participating in the *Commonwealth Accountability Testing System* Alternate Portfolio Assessment: fourth-, eighth, or twelfth-grade.

Students in grades 4,5,7,8,10, 11 and 12 completed batteries of open-response and multiple-choice questions (referred to as the Kentucky Core Content Tests) in selected contents for each grade.

	EP	4	5	6	7	8	9	10	11	12
Reading		■			■			■		
Mathematics		■	■		■	■			■	
Science		■			■	■			■	
Social Studies			■			■			■	
Arts & Humanities			■			■			■	
Practical Living/ Vocational Studies			■			■		■		■
Writing		■			■					■
NRT	■			■			■			■

In reading, mathematics, science and social studies, 6 forms of the test were administered, each containing 6 open-response and 24 multiple-choice questions used for reporting and accountability purposes. (Each form also included an additional open-response item and 4 multiple-choice items for field test purposes, bringing the total to 7 open-response and 28 multiple-choice. Field test items are not included in reporting or accountability data.)

In arts & humanities and practical living/vocational studies, there were 12 forms of the assessment, each containing 2 open-response and 8 multiple-choice items used for reporting and accountability purposes. (An additional open-response and 4 multiple-choice items were included for field test purposes.)

Writing data are based on the administration of writing prompts distributed across 6 forms (students select one of two prompts) and the writing portfolio.

Multiple-choice questions are included in the 2004 data reported here and are combined with the open-response data. They are included such that multiple-choice items are weighted at approximately 33% and open-response items at approximately 67%.

Students in grades end-of-primary, 6 and 9 completed batteries of multiple-choice questions on the CTBS/5 (referred to as the National Norm Referenced Test) in selected content areas of reading, language arts and mathematics.

Schools are held accountable for all of the students enrolled in the school as of the first day of the testing window.

Kentucky law states that, "schools shall expect a high level of achievement of all students." It also states that, "schools shall be rewarded for an increased proportion of successful students, including those students who are at risk of school failure."

Therefore, there are virtually no exemptions from the testing. Students not included in the data summarized here include:

- Foreign exchange students.
- Students determined to be medically unable to participate in the assessment.
- (at the school's option) limited English-speaking students who have been enrolled in an English-speaking school for fewer than two years.

The number and percent of students who did not participate for these reasons are provided in this report. Any other student for whom the school is accountable but who was not tested is assigned to the "Novice Non-Performance" level. The number and percentage of students who received this type of "Novice" rating are also in the report.

Explanation of Reports

KPR

- Cover Page & Intro.
- ***Accountability Cycle 2004***
- Disaggregation Index Trends
- Content Area Index Trends
- Academic Index Comparisons
- Cluster of Eight (8) Content Domain Reports
- NRT
- NRT Disaggregation

Individual

- Individual Student
- Student Listing
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Accountability Cycle 2004

The following KPR pages are presented in duplicate – first, without annotation, to allow readers to clearly see content, and second, with annotation to explain specific content. The **Accountability Cycle 2004** page summarizes information pertaining to a school's Accountability Classification. It presents the **Growth Chart** unique to each school and the **Growth Table** featuring school results and school accountability target values. (See the preceding section on the CATS Accountability Model for more details.) The Growth Chart includes a Goal Line represented by a straight line that begins in 2000 at the Baseline and ends in 2014 at 100. Note that the school in this example has a Baseline of 65.8. The actual baseline for the school is equal to this value minus the standard error, or 65.8 - .6 = 65.2. The Baseline value of 65.2 appears in the **Accountability** section of the Growth Table, in the first cell of the **Goal** column. The standard error of 0.6, used to compute the beginning point, appears under Accountability, in the last cell. Other important target values for the school also appear under Accountability. Each of the three columns under Accountability -- Goal, Assistance, and Novice -- presents values used in the CATS Accountability System.

SPRING 2004
KENTUCKY PERFORMANCE REPORT
ACCOUNTABILITY CYCLE 2004

School: Any High School
District: Any District
Code: 999888

	School			Accountability		
	Index	% Novice	Dropout	Goal	Assistance	Novice
1999	58.9	36.21	4.70			
2000	72.7	16.38	4.11			
*Baseline	65.8	26.30	4.40	65.2		26.30
2001	73.4	17.14	3.04			
2002	74.9	14.96	3.32			
Combined	74.2	16.05	3.18	70.1	65.2	23.26
2003	74.1	16.46	4.01			
2004	70.6	21.47	3.11			
Combined	72.4	18.97	3.55	75.0	67.6	20.21
2005						
2006						
Combined				79.9	69.9	17.17
2007						
2008						
Combined				84.7	72.3	14.13
2009						
2010						
Combined				89.6	74.7	11.09
2011						
2012						
Combined				94.5	77.0	8.04
2013						
2014						
Combined				99.4	79.4	5.00
				Standard Error: 0.6		

Your school has been designated a "Progressing - Decline" school for Accountability Cycle 2004. Your school's growth accountability index falls below its goal point and meets or exceeds its assistance point. A progressing school that does not obtain an accountability index greater than that which it obtained in the previous biennium is not eligible to earn a reward or other recognition as a progressing school.

Recognition Points	
100	
88	
77	
66	2002
55	NA

Shares	
Meets Goal	0.0
Progressing	0.0
Recog. Pts.	0.0
Total	0.0

Your baseline index is the two-year average of your 1998-1999 and 1999-2000 scores. Your school's goal line, assistance line, and novice reduction rates are calculated from your school's scores for the baseline years 1998-1999 and 1999-2000.

Run Date: 08/11/2004 * The Baseline Goal value is calculated by subtractin he Baseline Index. Page: 3

Accountability scale (0 – 140) is represented on the vertical axis.

Rows under **'School'** present annual and biennial school results.

Goal, Assistance, and Novice values under **'Accountability'** are computed biennial targets.

Goal Line ends at index of 100 minus standard error or measurement.

2004 Biennial School Index

Goal Line begins in 2000 at school's 2000 Baseline Index.

2003 Annual School Index

Assistance Line begins in 2002 at school's 2000 Baseline Index.

Assistance Line ends at index of 80 minus standard error of measurement

Biennial target values under *Goal* are the indices a school must meet or exceed at given accountability year.

Standard Error appears in last row of table.

Values printed under Goal give the precise target a school has to meet or exceed in a biennium to be in the *Meeting Goal* area of the graphic.

The other values listed in the Growth Table under Goal, 70.1, 75.0, 79.9, 84.7, 89.6, 94.5 and 99.4 are the school's unique targets or goals for each biennium depicted on the Growth Chart. While the Growth Chart represents a useful tool for tracking a school's progress toward Proficiency, it is the values printed under Goal that give the precise target a school has to meet or exceed in a biennium to be in the Meeting Goal area of the graphic, and thus on target to reach 100 or Proficiency by 2014.

Also presented under **Accountability** are values comprising the Assistance line, i.e., the line separating the Assistance area from the Progressing area on the Growth Chart. These values appear in the **Assistance** column. Starting in the 2002 biennium, they are: 65.2, 67.6, 69.9, 72.3, 74.7, 77.0 and 79.4. Note that the Assistance point in 2002 (i.e., 65.2) equals the 2000 biennial goal point appearing under **Goal** just above it. These points were determined essentially by taking the Goal line, sliding it over two years such that the Baseline value was associated with the 2002 biennium, and then tilting that line so that it ended in 80 in 2014 instead of 100. The standard error of 0.6 is subtracted from the Assistance Line, just as it was subtracted from the Baseline; this is why the Assistance Line begins at the Baseline beginning point of 65.2 and ends at 79.4, or 80 - .6 = 79.4. A school falling on or above the Assistance Line, but below the Goal Line, is in the Progressing area, while a school falling below the Assistance Line is in the Assistance area.

The standard error of 0.6 is subtracted from the Assistance Line, just as it was subtracted from the Baseline.

The Goal Line and the Assistance Line each incorporate a standard error. Larger schools have a smaller standard error than smaller schools.

The Goal Line and the Assistance Line each incorporate a standard error ranging in size from approximately 0.5 to 3.0 depending upon school size and school level (elementary, middle and high school). Larger schools with many students will have a smaller standard error than smaller schools with fewer students. The standard error is represented on the Growth Chart (shown on page 26) by the thickness of the line. In the KPR, however, the standard error is subtracted first, and then a "thin" line is drawn to depict the Goal Line and the Assistance Line. That is, a fairness margin is included for both lines.

The fairness margin takes into account that there are errors of measurement in any assessment program. These errors are not errors in the sense that a mistake has been made; rather, they reflect the realization that measurement is imprecise. Introductory statistics courses teach that measurement error should always be taken into account when interpreting test scores. In fact, measurement experts strongly recommend that test publishers and other reporting agencies properly represent measurement error when reporting test scores. For example, confidence intervals are often built around individual student scores. In providing a

standard error or fairness margin for the Goal and Assistance Lines, the CATS Accountability Model gives an acceptable cushion to schools in that, if a school is just *below* the Goal line, but within one standard error, the school is treated as if (or categorized as if) the school were at or above the Goal Line. The same holds true for the Assistance Line.

Important targets for Novice reduction for each biennium are presented in the **Novice** column under Accountability. With regard to Novice reduction, schools must reduce their percent of novices on a schedule so that by 2014, the school has 5% or less of its students' scores as Novice. The precise Novice reduction targets needed for the school in the example to have only 5% Novice by the year 2014 are 26.30, 23.26, 20.21, 17.17, 14.13, 11.09, 8.04 and 5.00. The Baseline for the Novice reduction criteria was calculated by first obtaining the percent of Novice in each of the seven content areas (i.e., reading, mathematics, science, social studies, arts and humanities, practical living/vocational studies and writing). Each of these percentages was then weighted by the same weights used to calculate an Accountability Index. Next, five percent was subtracted from the Baseline percent Novice and the remainder divided by seven (the number of biennia from 2002 to 2014). Finally, this last figure was subtracted from the Baseline value once to determine the Novice reduction goal for 2002, twice to determine the Novice reduction goal for 2004, three times for 2006, and so on for each of the remaining biennia.

Schools must reduce their percent of Novices on a schedule. By 2014, each school must have no more than 5% Novices.

While all the values provided in the three columns under **Accountability** represent ***targets*** established from the baseline years of 1999 and 2000, the data in the three columns under **School** represent ***actual school values*** for the school years listed in the first column (e.g., 1999, 2000, *Baseline, 2001, 2002, Combined, 2003, 2004, Combined, etc.). For example, the first column labeled "Index" contains the Accountability Indices achieved by the school during the school years listed. In this example, the school had an Accountability Index of 74.1 for 2003 and 70.6 for 2004. The school's combined Accountability Index for the biennium ending in 2004 was 72.4. It is this value that is compared to the Goal and Assistance points to help determine the school's Accountability Classification. In this example, the combined Accountability Index of 72.4 is less than the 2004 goal of 75.0. This places the school below the Goal Line and in the Progressing area of the Growth Chart. An index of 67.6 or lower would have placed the school in the Assistance area of the chart.

The data in the three columns under School represent *actual school values* for the school years indicated.

The second column under **School** presents the school's percentage of Novices. Note that the school met this criterion (i.e., 18.97 is less than 20.21). Finally, because the school in this example is a high school, the Dropout criterion applies. This school increased

For accountability, a school's dropout rate (reflected on the growth chart page) is based upon the grade range in the school. For example, a 7-12 school will have a dropout rate based upon grades 7 through 12.

its percent of Dropouts from 2002 to 2004. However, the percent of Dropouts remains small. Note that the criteria for the dropout rate is less than or equal to 5.3 percent, or a dropout rate that is at least 1/2 percent lower than its dropout rate of the previous biennium. A school cannot receive rewards if its dropout rate exceeds 6 percent.

Note that the Accountability Classification for the school is presented in the caption below the **Growth Chart** and **Table**.

In addition to the accountability criteria discussed above, schools can achieve rewards in **2004** three other ways as long as the Novice reduction and Dropout criteria have been satisfied:

- If a school is in the Progressing area of the Growth Chart, and increased its Accountability Index in the second biennium, the school is eligible for one-half share of rewards.
- If a school passes any one of the five Recognition Points (i.e., 55, 66, 77, 88, 100) the school is eligible for one share of rewards.
- If a school is in the top five percent of all schools and has met or exceeded the fourth recognition point, the school is eligible for one share of rewards if the school is not receiving rewards any other way.

The highest scoring five (5) percent of all schools shall be designated as Commonwealth pace-setter schools if they have met or exceeded the fourth point of recognition and if they meet the dropout rate and novice reduction requirements.

Besides establishing a **biennial** system of rewards for school improvement, every two years CATS also provides assistance for schools that do not perform as expected (see 703 KAR 5:120 Assistance for schools; guidelines for scholastic audit). According to regulation, all schools falling into the Assistance classification will be rank-ordered from highest to lowest according to the school's combined 2003/2004 Accountability Index. This set of schools will then be divided into thirds. The top third will be designated Level 1 schools, the middle third Level 2, and the bottom third Level 3. The following bullets briefly summarize the audit/review process for these schools:

- Level 3 Schools will be scheduled for scholastic audits by an external team coordinated by KDE. The school shall adhere to the requirements for a "Level 3" school as defined in 703 KAR 5:120 Sections 4, 5, 6, 7, 8 and 9. Level 3 schools shall receive education assistance from a highly skilled educator under KRS 158.782 and a scholastic audit. Assistance Level 3 schools may be eligible to receive Commonwealth school improvement funds.

Schools in Assistance are ranked and grouped into three levels:

Level 1: Scholastic self-review

Level 2: Scholastic review

Level 3: Scholastic audit

- Level 2 Schools are required to receive a scholastic review by a team set up by KDE. The team must include local district members. The school shall adhere to the requirements for a "Level 2" school as defined in 703 KAR 5:120 Section 3. Level 2 schools shall receive a scholastic review facilitated by a designee of the Commissioner of Education with assistance from the district's central office staff. Assistance Level 2 schools may be eligible to receive Commonwealth school improvement funds.
- Level 1 Schools are required to receive a scholastic self-review by a team set up by the local school district. The school shall adhere to the requirements for a "Level 1" school as defined in 703 KAR 5:120 Section 2. Level 1 schools must conduct a scholastic review and self-study facilitated by the district's professional development coordinator with assistance provided by Kentucky Department of Education staff. Assistance Level 1 schools may be eligible to receive Commonwealth school improvement funds.

Important questions that the Accountability Cycle 2004 report page can answer include the following:

- What is your school's annual accountability index for 2004?
- What was your school's accountability index goal for 2004?
- Did your school meet its 2004 accountability index goal?
- What is your school's 2006 biennial goal?
- How much growth is needed in 2004 – 2005 to put you on track to achieve your 2006 biennial goal?
- How far is your school from finding itself in Assistance in 2006?
- Is your school positioned to meet its novice reduction goal?

Since 2004 is a biennial year, the Combined 2003/2004 index point appears on AnySchool's Growth Chart. Locate the Combined 2003/2004 information on the Growth Table (72.4, displayed to the right of the Growth Chart). AnySchool's annual and biennial indices also appear in the **School** section, in the column labeled **Index**. The 2004 annual school accountability index is 70.6. In the row directly above it you see the 2003 biennial index – 74.1. (The biennial index is labeled "Combined" on the table. This means that it represents a combination of the indices achieved in the two-year biennium.) Notice that the 2002 biennial index of 74.2 is also plotted against the Goal Line of the Growth Chart. It is represented by a dot positioned just above the line.

- How does the 2004 annual index of 70.6 compare with the 2003 annual index?
- Is index change in the right direction?

Comparison of 2004 Annual with 2003 Annual Index

70.6 2004 Annual Index
–74.1 2003 Annual Index
–3.5 Change in Index

As shown above, the 2004 annual index is 3.5 less than the 2003 annual index. This change is not in the right direction.

Now locate the 2006 Biennial Index goal in the Accountability section of the Growth Table, in the column labeled **Goal**. It is 79.9.

- How close is the 2004 Annual Index from the 2006 Biennial Index Goal?
- What should you conclude from the difference between the 2004 Annual Index and the 2006 Biennial Index Goal?

Comparison of 2004 Annual with 2006 Biennial Index Goal

79.9 2006 Biennial Goal
–70.6 2004 Annual Index
–9.3 Difference in Indices

If you conclude that the school in this example (i.e., AnySchool) needs to grow by 9.3 by 2005 - 2006 to reach the biennial goal, that is incorrect. AnySchool's 2005 and 2006 annual indices *must grow by an average of than 9.3, if it is to reach the biennial goal of 79.9. Why?*

We use the biennial average because averaging two years of data provides greater stability.

Because the biennial school accountability index is a two-year average. We use the biennial average because averaging two years of data provides greater stability.

- Has AnySchool's percentage of Novice and Dropout decreased?

The percentage of AnySchool students scoring at the novice level in 2004 – 21.47 – is found in the **School** section of the table, under **% Novice**. This represents an increase of 5.01 percentage points (21.47 – 16.46 = 5.01) over 2003. Similar to the changes seen in index scores, this change is not in the right direction. How does it compare to the target? Look in the **Accountability** section of the table, under **Novice.** We find that the 2004 target is 20.21%. AnySchool has met its 2004 target because the average percentage of novices across 2003 and 2004 is 18.97, i.e., (16.46 + 21.47) / 2 =18.97.

Accountability Trend

The Accountability Trend page is important because it provides a one-page look at many aspects of accountability data.

The information in the Academic Index table is graphically displayed on the Content Area Index Trends page.

An example of the Accountability Trend page is provided on the following page of this document. The Accountability Trend page provides more detailed summary information relative to a school's accountability calculations for each year of the cycle, including academic indices for each content area, nationally norm-referenced test indices, non-academic indicators and the number of accountability students. While some of the same information on this page is presented in a more graphic, user-friendly format on other pages of the KPR (for example, see Content Area Index Trends section below), the Accountability Trend page is important because it provides a one-page look at many aspects of accountability data. For example, this is the only page of the KPR that provides the non-academic data and NRT indices for four years of the accountability cycle.

The academic index trends across years can be evaluated to assess growth to determine the relative strengths and weaknesses of each content area. In addition, values on this page can be used to replicate or check the calculation of the Accountability Index for each year. For example, the content area index computations include scores of Alternate Portfolio students and are carried out to four decimal places, the same precision used by the Department of Education and its contractors in their calculations.

While the Growth Chart on the Accountability Cycle 2004 page of the KPR gives a very global summary of a school's accountability results, the Accountability Trend page provides the next level of detail as one "drills-down" through the data provided in the KPR. The Accountability Trend page allows that first glimpse of what content areas need more attention. In each case, more detailed, content area specific pages of the KPR (discussed below) need to be reviewed. The information in the Academic Index table is graphically displayed on the Content Area Index Trends page.

Kentucky Department of Education

SPRING 2004
KENTUCKY PERFORMANCE REPORT
ACCOUNTABILITY TREND

School: Any High School
District: Any District
Code: 999888
Grade: High School

Academic Index	1999	2000	2001	2002	2003	2004
Reading	60.8228	75.3423	75.1531	73.8895	75.4424	75.0843
Mathematics	50.7548	67.0055	73.8879	70.0511	70.0814	65.9257
Science	49.9747	69.4869	69.2689	74.7938	69.1718	67.2747
Social Studies	47.5757	69.0454	66.3656	71.7786	68.9748	67.4719
Arts and Humanities	38.0155	59.0224	65.2244	66.3252	70.4938	62.2679
Prac. Living/Voc. Studies	68.1534	87.4184	80.1145	83.6722	80.4217	80.7206
Writing	59.9088	63.2002	63.6886	66.4908	68.1444	64.8659
Total Academic Index	53.7	69.6	70.2	72.0	71.2	68.7

Non-Academic Indicators **	1999	2000	2001	2002	2003	2004
Attendance Rate	91.28	92.82	93.43	94.21	93.61	93.61
Dropout Rate	4.70	4.11	3.04	3.32	4.01	4.01
Retention Rate	8.70	11.11	7.13	3.36	7.07	7.07
Successful Transition to Adult Life	100.00	97.83	100.00	98.89	98.94	98.94
Non-Academic Index	96.0585	95.6536	97.1895	97.0128	96.4673	96.4673

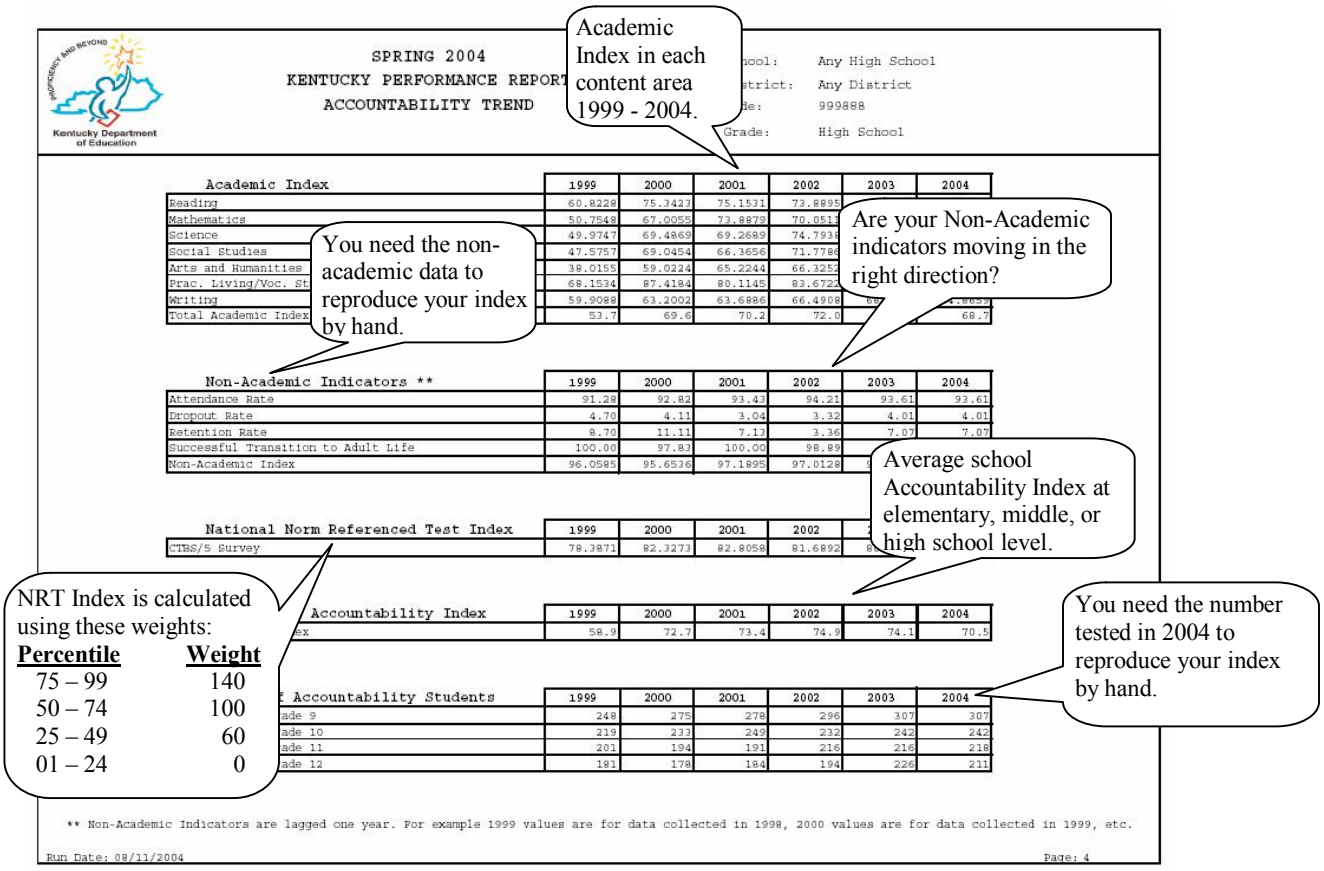
National Norm Referenced Test Index	1999	2000	2001	2002	2003	2004
CTBS/5 Survey	78.3871	82.3273	82.8058	81.6892	80.7166	52.5081

High School Accountability Index	1999	2000	2001	2002	2003	2004
Accountability Index	58.9	72.7	73.4	74.9	74.1	70.5

Number of Accountability Students	1999	2000	2001	2002	2003	2004
Number Tested Grade 9	248	275	278	296	307	307
Number Tested Grade 10	219	233	249	232	242	242
Number Tested Grade 11	201	194	191	216	216	218
Number Tested Grade 12	181	178	184	194	226	211

** Non-Academic Indicators are lagged one year. For example 1999 values are for data collected in 1998, 2000 values are for data collected in 1999, etc.

Run Date: 08/11/2004 Page: 4



Important questions that the Accountability Trend page can answer include the following:

- In which content-domains has progress over time not been on track to reach proficiency in 2014.
- What do trends tell us about current performance?
- How might the trend in the NRT Index be described? Is it consistent with KCCT results?
- Are you satisfied with your success in reaching your non-academic index targets?

Explanation of Reports

KPR
- Cover Page & Intro.
- Accountability Cycle 2004
- ***Disaggregation Index Trends***
- Content Area Index Trends
- Academic Index Comparisons
- Cluster of Eight (8) Content Domain Reports
- NRT
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Individual
- Individual Student
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Disaggregation Index Trends - Academic Index

An example of the Disaggregation Index Trends page is provided below. This page of the KPR is new for 2004. While the Kentucky Department of Education provides a separate report for NCLB, this page of the KPR gives index treads for important NCLB subpopulations not reported elsewhere in the KPR. This one-page report presents Academic Index comparisons/trends for multiple years, *within* the following student subpopulations:

- Gender (Female and Male)
- Ethnicity (White, African-American, Hispanic, Asian)
- Free or Reduced Lunch Approved (price of lunch reduced)
- Free or Reduced Lunch Non-Approved (price *not* reduced)
- Non-Limited English Proficiency
- Limited English Proficiency For NCLB
- Exit LEP 2 Years Prior
- Identified Limited English Proficiency
- No Disability (students without disabilities)
- Disability (students with disabilities)
- Disability (Accommodations)
- Disability (No Accommodations)

Non-Limited English Proficiency refers to students who are not limited English proficient (i.e., native English speakers and speakers of English as a second language who demonstrate no need for LEP services). Limited English Proficiency for NCLB is comprised of LEP students whose scores are included in AYP. Exit LEP Two Years Prior refers to students who once received LEP services, but who exited the LEP program two years (or more) prior to the current year and are no longer included in the NCLB AYP calculations. (Recall that schools and districts include for two years in their LEP AYP calculations the scores of students who exit the LEP program as a result of having demonstrated English language proficiency.) The group, Identified Limited English Proficiency, combines the two LEP student groups -- those included in LEP for NCLB and those who have exited the LEP program and are not included in AYP.

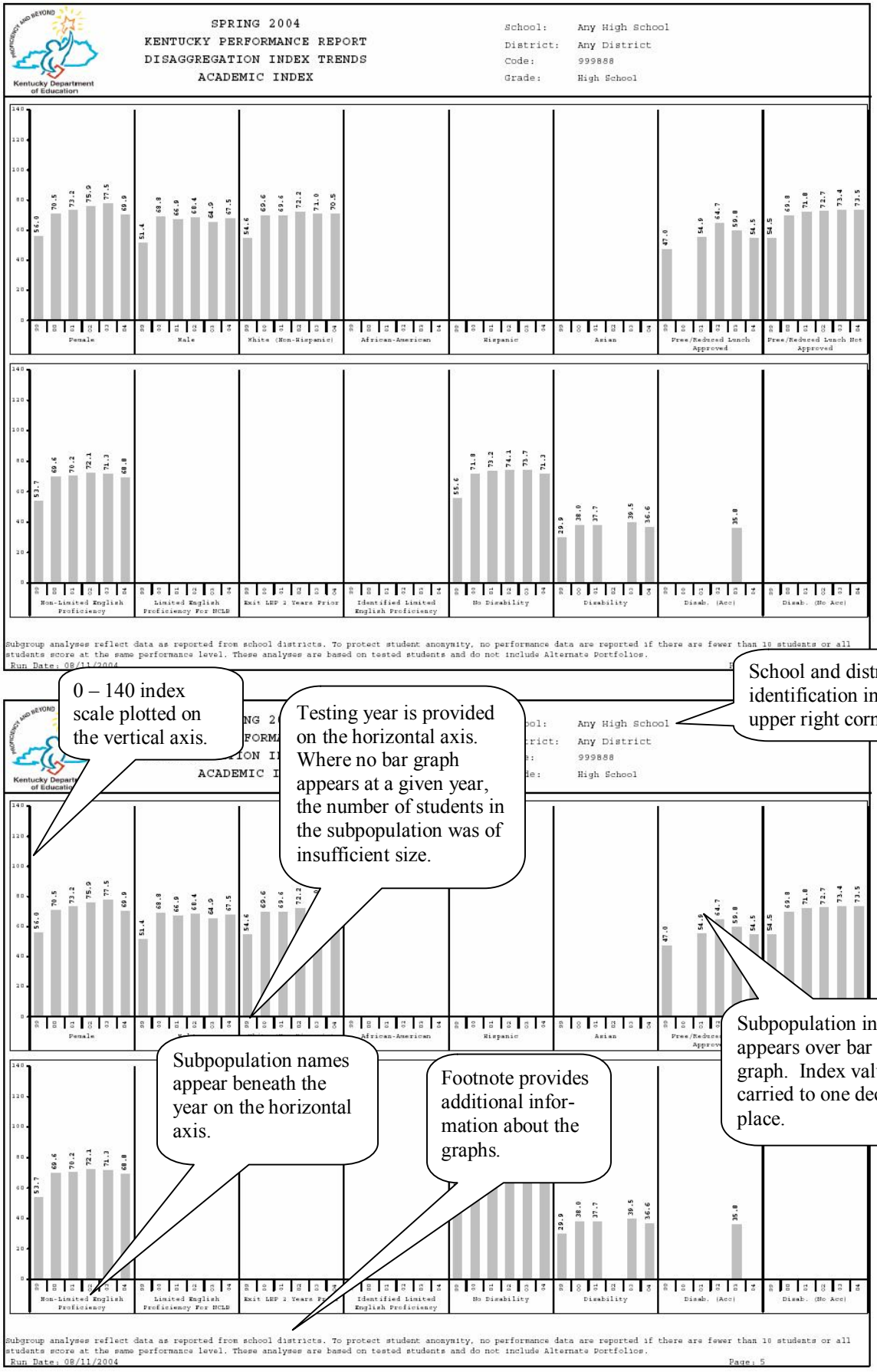
The No Disability group consists of students who are *not* disabled, while Disability consists of students who are disabled. Among disabled students are two subgroups: those whose IEPs provide for accommodations during instruction and assessment and those whose IEPs have no such provisions.

Vertical bars reflecting subpopulations allow comparison of Academic Indices by year from 1999 through 2004, as indicated on the horizontal axis. Index values printed above each bar are based on the 0 to 140 scale, displayed on the vertical axis. Index values are rounded to one decimal point. As stated in the footnote on page 5 of the KPR, this calculation of index values *excludes* scores of students participating in the Alternate Portfolio program. Keep in mind that results are *not* reported where the subpopulation is comprised of fewer than 10 students or all students happen to score at the same proficiency level.

The female disaggregation index trend graphs provide a rather dramatic illustration of changes in the trend described by the performance of high school girls. Although the index for girls steadily increased from 56.0 in 1999 to 77.5 in 2003, it decreased to 69.9 in 2004, more than 7and a half points. One might follow up on this rather quickly simply by flipping to the other content area index trend pages to determine if the decrease is attributable largely to one content area or spread out among several. As can be seen on the graph to the right, the boys' trend has been generally flat following a large increase from 51.4 in 1999 to 68.8 in 2000. Recently the gap between girls and boys has narrowed (from 12.6 in 2003 to 2.4 in 2004) through the highly undesirable means of a loss on the part of girls, rather than a gain on the part of the boys, or better yet, academic gain on the part of both.

Some important questions you may want to ask about disaggregated academic index trends in your school or district include:

- How close are your disaggregated academic indices to 100?
- Are your disaggregated academic index trends marking a trajectory that ends at 100 or higher in 2014?
- What subpopulation academic indices show considerable growth?
- What subpopulation academic indices show consistent growth?
- What subpopulation academic indices show irregular, insufficient, no growth, or even decline?
- What questions might be asked of teachers and others to help explain the performance patterns shown in the scores?


SPRING 2004
KENTUCKY PERFORMANCE REPORT
DISAGGREGATION INDEX TRENDS
ACADEMIC INDEX
School: Any High School
District: Any District
Code: 999888
Grade: High School
Female
Male
White (Non-Hispanic)
African-American
Hispanic
Asian
Free/Reduced Lunch Approved
Free/Reduced Lunch Not Approved
Non-Limited English Proficiency
Limited English Proficiency For NCLB
Exit LEP 2 Years Prior
Identified Limited English Proficiency
No Disability
Disability
Disab. (Acc)
Disab. (No Acc)
Subgroup analyses reflect data as reported from school districts. To protect student anonymity, no performance data are reported if there are fewer than 10 students or all students score at the same performance level. These analyses are based on tested students and do not include Alternate Portfolios.
Run Date: 08/11/2004
0 – 140 index scale plotted on the vertical axis.
Testing year is provided on the horizontal axis. Where no bar graph appears at a given year, the number of students in the subpopulation was of insufficient size.
School and district identification in upper right corner
Subpopulation index appears over bar graph. Index value is carried to one decimal place.
Subpopulation names appear beneath the year on the horizontal axis.
Footnote provides additional information about the graphs.

Explanation of Reports

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- Cover Page & Intro.
- Accountability Cycle 2004
- Disaggregation Index Trends
- ***Content Area Index Trends***
- Academic Index Comparisons
- Cluster of Eight (8) Content Domain Reports
- NRT
- NRT Disaggregation

Individual

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Content Area Index Trends

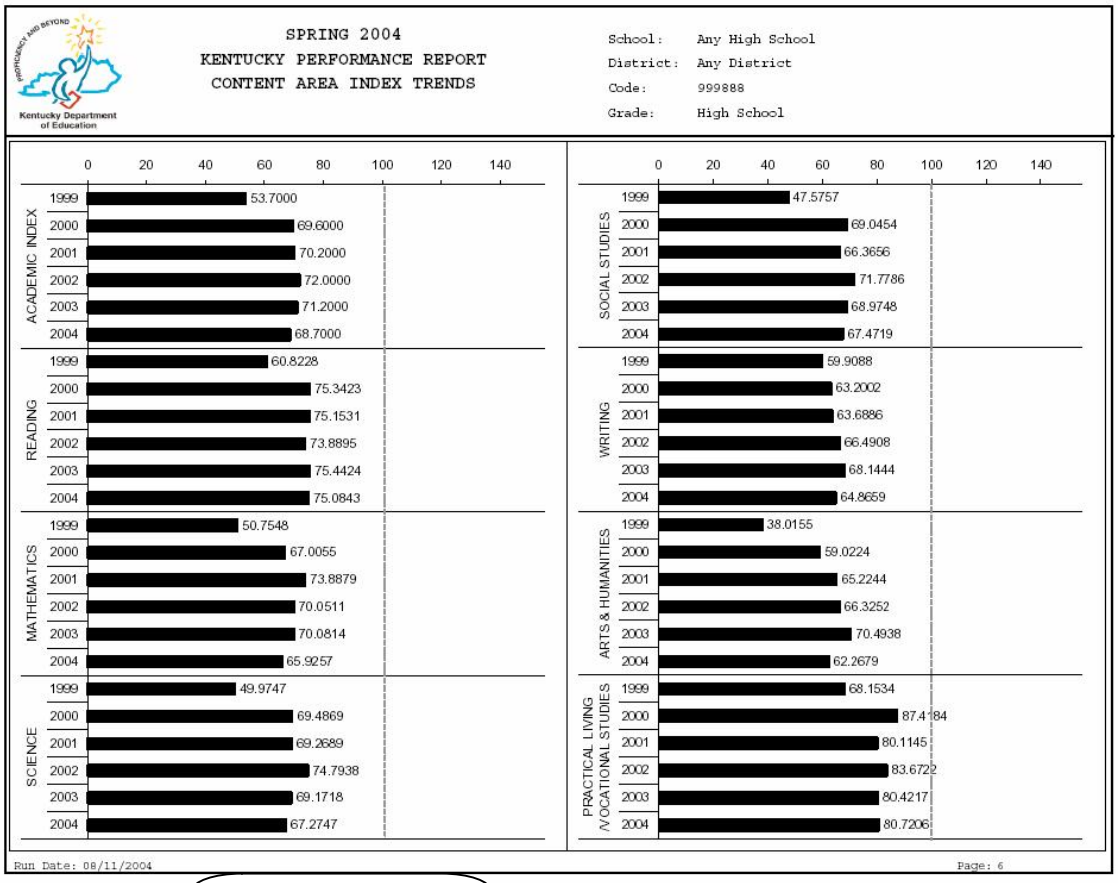
An example of the Content Area Index Trends page is provided below. This one-page report presents comparisons/trends for multiple years *within* each content area as well as for the overall Academic Index. Horizontal bar charts are used to compare data across the years. Indices are graphed beginning with the spring 1999 Kentucky Core Content Test. Index values printed next to each bar reflect the 0 to 140 scale. It should be noted that each index value includes the scores of students participating in the Alternate Portfolio. Values for each year and content area are rounded to four decimal places and can be used to replicate the calculation of Accountability Indices for each year. Please note that comparisons should only be made within a content area and *not* across content areas. Identical index values across content areas may have different instructional implications.

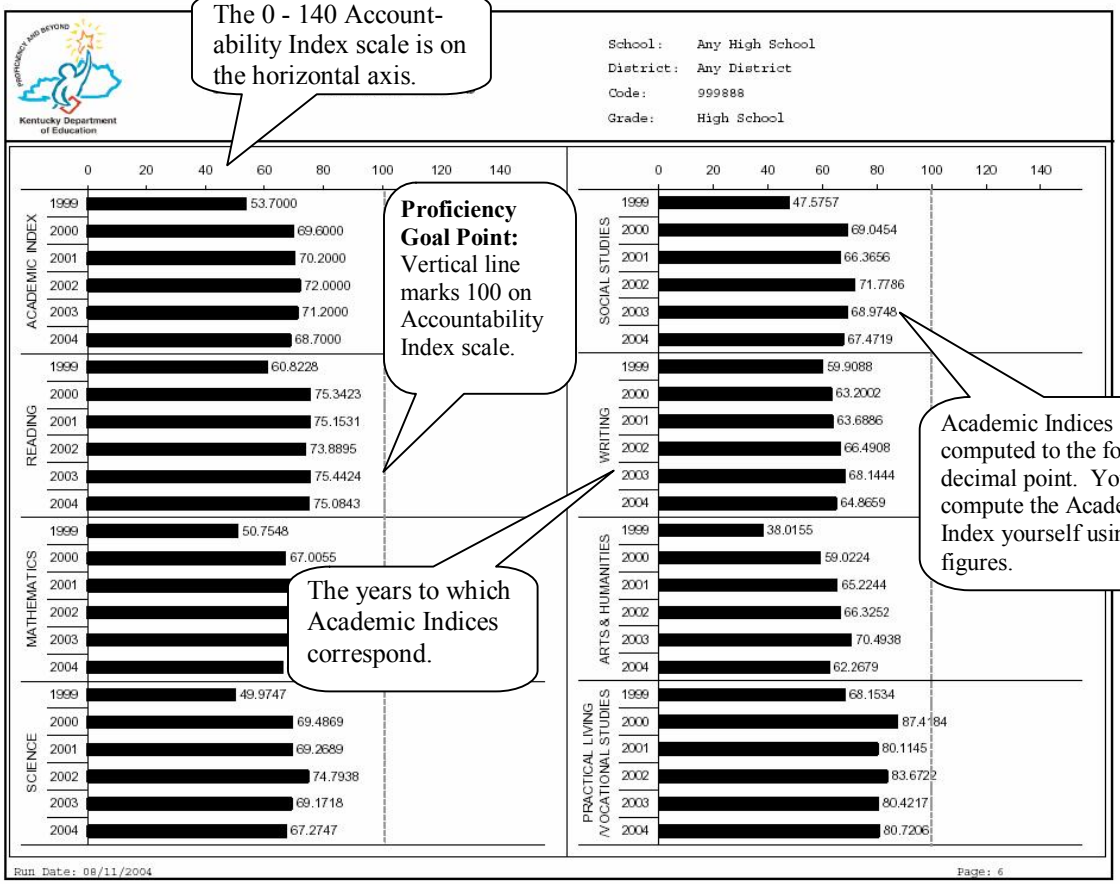
Values on the first bar chart, the Academic Index (top left) closely parallel school index points displayed in the School section of the Growth Table (three KPR pages back). The figures differ somewhat, however, because computation of the Accountability Index includes nonacademic indicators, whereas, computation of the Academic Index does not. Data displayed on the Content Area Trend Page bar graphs is identical to that displayed in tabular from on the Accountability Trend page.

Some important questions you may want to ask about content area index trends in your school include:

- How close is your school's Academic Index to 100? How close is each content area?
- How does each content area index compare to the absolute standard of 100?
- In what content areas has your school declined over the years, been flat, or showed uneven performance?
- What content area(s) show consistent growth?
- What questions might be asked of teachers and others to help explain the performance pattern shown in the scores?
- What content areas might be targeted for instructional intervention?

Content Area Index Trend figures are displayed in tabular form on the Accountability Trend Page. You will see that the numbers match.


SPRING 2004
KENTUCKY PERFORMANCE REPORT
CONTENT AREA INDEX TRENDS
School: Any High School
District: Any District
Code: 999888
Grade: High School
Kentucky Department of Education
ACADEMIC INDEX
1999 53.7000
2000 69.6000
2001 70.2000
2002 72.0000
2003 71.2000
2004 68.7000
READING
1999 60.8228
2000 75.3423
2001 75.1531
2002 73.8895
2003 75.4424
2004 75.0843
MATHEMATICS
1999 50.7548
2000 67.0055
2001 73.8879
2002 70.0511
2003 70.0814
2004 65.9257
SCIENCE
1999 49.9747
2000 69.4869
2001 69.2689
2002 74.7938
2003 69.1718
2004 67.2747
SOCIAL STUDIES
1999 47.5757
2000 69.0454
2001 66.3656
2002 71.7786
2003 68.9748
2004 67.4719
WRITING
1999 59.9088
2000 63.2002
2001 63.6886
2002 66.4908
2003 68.1444
2004 64.8659
ARTS & HUMANITIES
1999 38.0155
2000 59.0224
2001 65.2244
2002 66.3252
2003 70.4938
2004 62.2679
PRACTICAL LIVING /VOCATIONAL STUDIES
1999 68.1534
2000 87.4184
2001 80.1145
2002 83.6722
2003 80.4217
2004 80.7206
Run Date: 08/11/2004
Page: 6


The 0 - 140 Account-ability Index scale is on the horizontal axis.
Proficiency Goal Point: Vertical line marks 100 on Accountability Index scale.
The years to which Academic Indices correspond.
Academic Indices are computed to the fourth decimal point. You can compute the Academic Index yourself using these figures.
School: Any High School
District: Any District
Code: 999888
Grade: High School
Kentucky Department of Education
Run Date: 08/11/2004
Page: 6

Explanation of Reports

KPR

- Cover Page & Intro.
- Accountability Cycle 2004
- Disaggregation Index Trends
- Content Area Index Trends
- ***Academic Index Comparisons***
- Cluster of Eight (8) Content Domain Reports
- NRT
- NRT Disaggregation

Individual

- Individual Student
- Student Listing
- Item Level

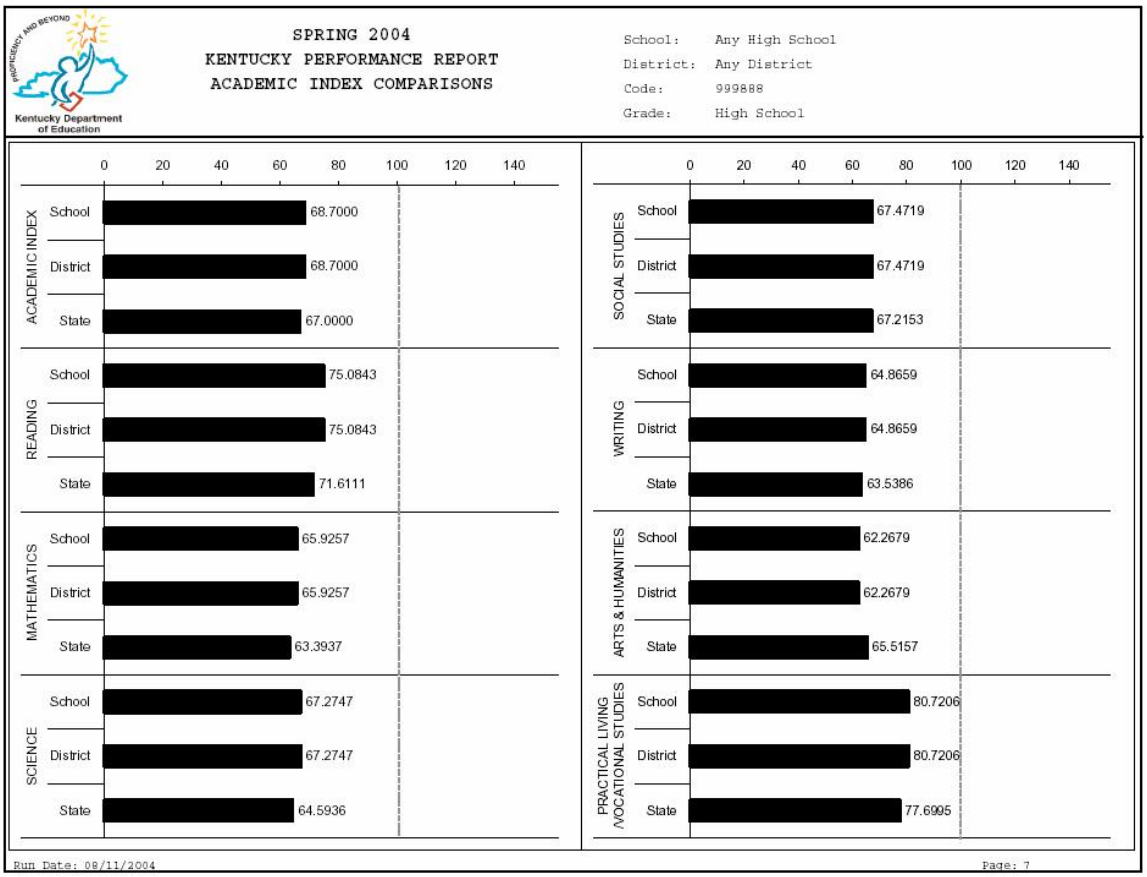
Normative just means with respect to a norm, such as a mean, median, or percentile. We make this point to highlight the fact that comparing school indices to the district or state mean index is *not* the same as comparing school indices to the state performance standard of 100 -- Proficiency.

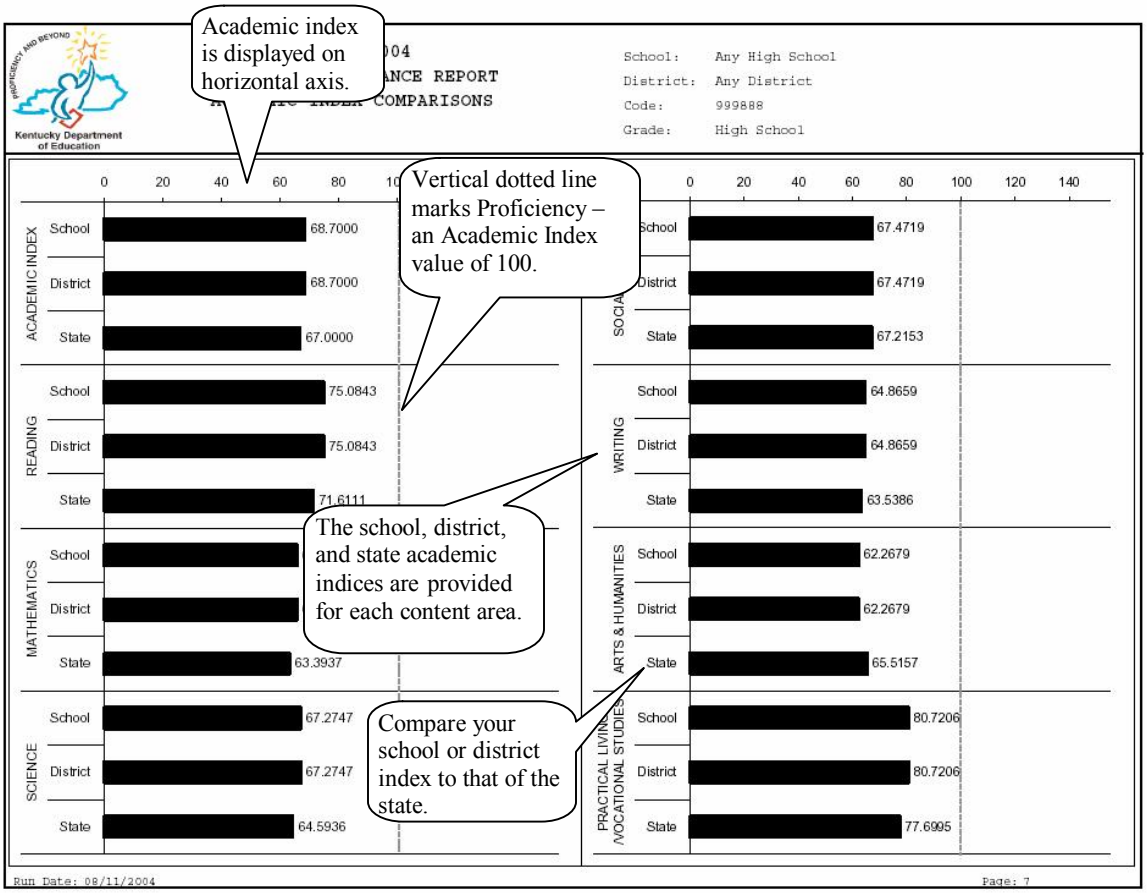
Academic Index Comparisons

An example of the Academic Index Comparisons page is presented on the following page. The Academic Index Comparisons report provides a one-page comparison of school, district, and state Academic Indices for each content area and for the overall Academic Index used in accountability. A separate page is provided for each grade level (i.e., elementary, middle and high school). For each index, comparisons are made using horizontal bars stacked one below the other in the following order: school, district, and state. Index values are printed next to each bar and reflect the 0 to 140 scale. The bars provide a visual comparison of the *current* year standing of the school as compared to the district and the state. These comparisons (e.g., the difference between the school and state) should be interpreted as normative. Notice however, that the dotted vertical line marking an index of 100 provides a comparison to the Kentucky performance standard of Proficiency.

While comparisons among levels are considered normative, index values for the school are the same values used for calculating the school's Academic, and thus, Accountability Index. Because of this, the school indices provide an indication of how close a school is to the state goal of 100 (i.e., Proficiency) by 2014. The district and state indices also provide an indication of how close each is to the state goal of 100. Note that specific content area index values are reported to four decimal places so Academic Index calculations can be verified/replicated. The overall Academic Index values are reported to one decimal place.

The comparisons provided on this page of the KPR can give a preliminary indication of which academic content areas are strong and which may require additional attention. Although the state goal for all schools is to have a combined 2013/2014 Accountability Index of 100, school content area indices that are considerably lower than the state, especially relative to other content area indices, should be further studied to determine possible reasons for why the indices are lower. In other words, the Academic Index Comparisons page provides a global, first look at your school's indices. Other report pages on the KPR will have to be referenced to gain more detailed information on the performance of students in your school. The content area Trends Data, Number and Percent page (see below) can provide this additional information.


SPRING 2004
KENTUCKY PERFORMANCE REPORT
ACADEMIC INDEX COMPARISONS
School: Any High School
District: Any District
Code: 999888
Grade: High School
Kentucky Department of Education
ACADEMIC INDEX
School 68.7000
District 68.7000
State 67.0000
READING
School 75.0843
District 75.0843
State 71.6111
MATHEMATICS
School 65.9257
District 65.9257
State 63.3937
SCIENCE
School 67.2747
District 67.2747
State 64.5936
SOCIAL STUDIES
School 67.4719
District 67.4719
State 67.2153
WRITING
School 64.8659
District 64.8659
State 63.5386
ARTS & HUMANITIES
School 62.2679
District 62.2679
State 65.5157
PRACTICAL LIVING /VOCATIONAL STUDIES
School 80.7206
District 80.7206
State 77.6995
0 20 40 60 80 100 120 140
Run Date: 08/11/2004
Page: 7


Academic index is displayed on horizontal axis.
Vertical dotted line marks Proficiency – an Academic Index value of 100.
The school, district, and state academic indices are provided for each content area.
Compare your school or district index to that of the state.
School: Any High School
District: Any District
Code: 999888
Grade: High School
Kentucky Department of Education
ACADEMIC INDEX
School 68.7000
District 68.7000
State 67.0000
READING
School 75.0843
District 75.0843
State 71.6111
MATHEMATICS
School 65.9257
District 65.9257
State 63.3937
SCIENCE
School 67.2747
District 67.2747
State 64.5936
WRITING
School 64.8659
District 64.8659
State 63.5386
ARTS & HUMANITIES
School 62.2679
District 62.2679
State 65.5157
School 80.7206
District 80.7206
State 77.6995
0 20 40 60 80 100 120 140
Run Date: 08/11/2004
Page: 7

Some important questions school personnel may want to ask about Academic Index comparisons include:

- Overall, how does the school compare to the district/state?
- In what content area(s) is the school out-performing the district and state?
- In what content area(s) is the school performing lower than the district and state?
- What perspectives can this give to the school? Note: remember to compare to the absolute goal of 100.

Trend Data: Number and Percent

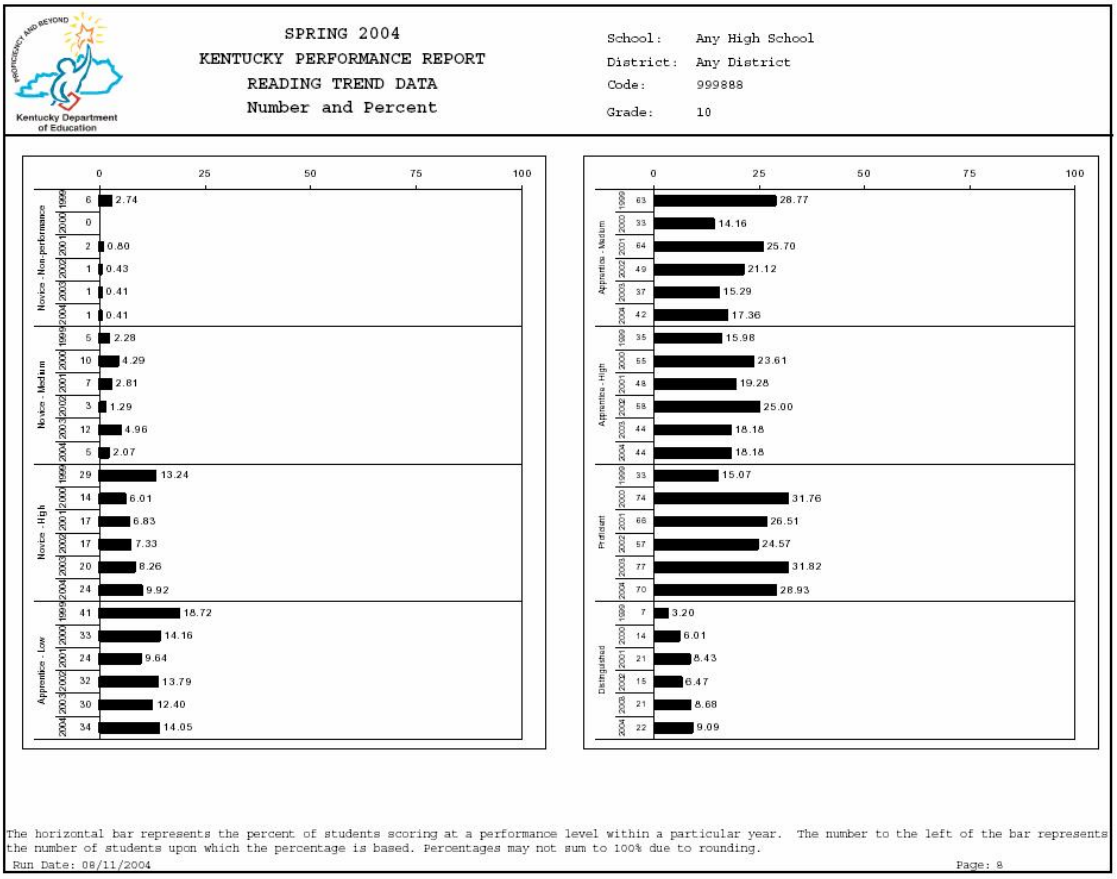
Cluster of Eight (8) Content Domain Reports

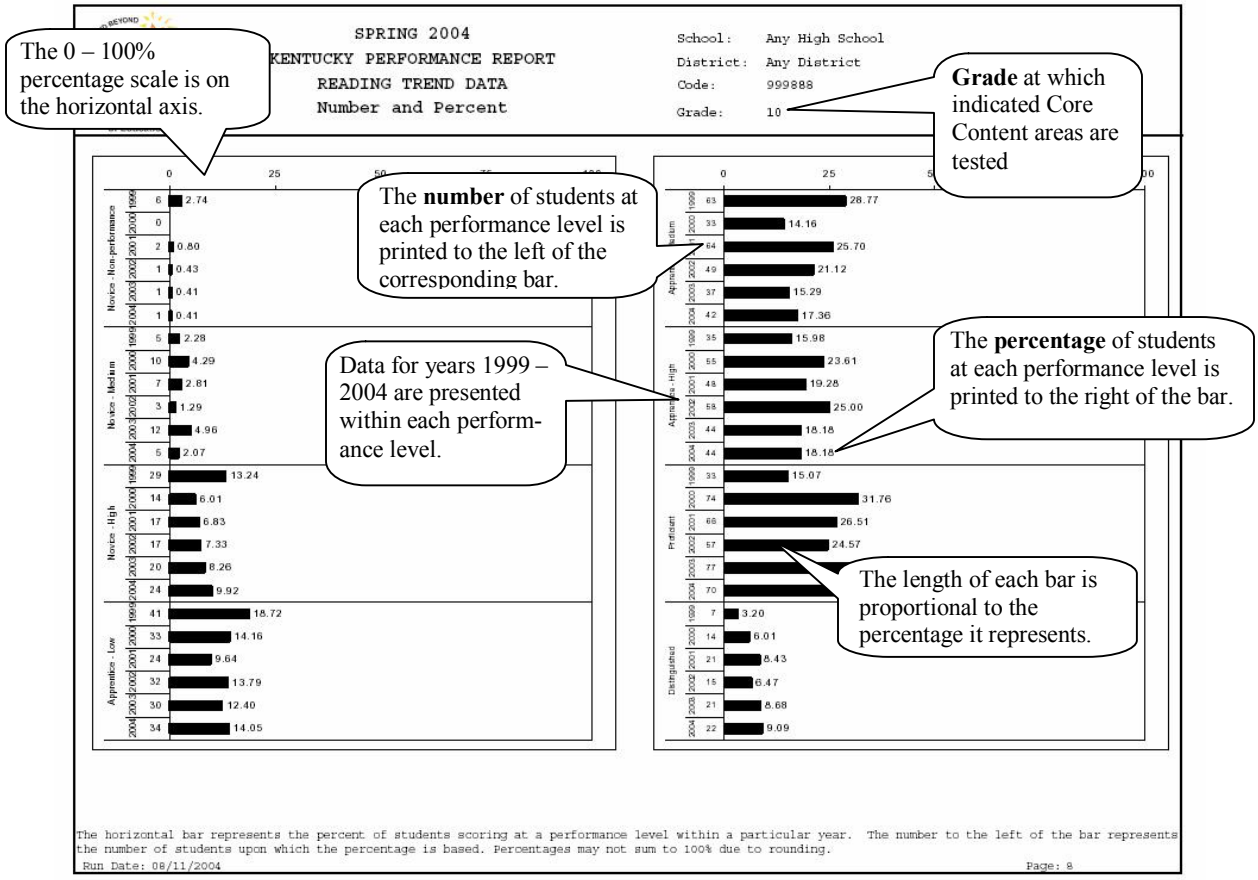
- ***Trend Data: Number and Percent***
- Content Area Sub-Domain
- Core Content (section-item scores)
- Student Questionnaire
- Disaggregation Performance Level Percents
- Disaggregation Index Trends
- Mean Scale Score/Standard Deviation
- Scale Score Data Disaggregation

This page begins the "cluster" of eight reports for each content domain. For a content area (e.g., reading), a single page gives horizontal bar charts for year-to-year comparisons of the percentage of students achieving Distinguished, Proficient, Apprentice (high, medium and low) and Novice (high, medium and non-performance). This data can be used to help schools assess their strengths and weaknesses in each content area including how their students are progressing through the Novice and Apprentice performance levels.

An example of this report is presented below. Trend data is provided for each content area (reading, mathematics, science, social studies, arts and humanities and practical living/vocational studies) as well as for the writing portfolio, on-demand test, and total writing. The trends include comparisons among six years (1999, 2000, 2001, 2002, 2003 and 2004). The horizontal bar charts give a visual comparison of percentages for multiple years of the assessment. Note that the percentages are printed at the end of each bar and are given to two decimal places, so that content area Academic Index calculations can be verified/replicated.

Because the goal of 100 (Proficiency) for schools can be reached by reducing the number/percent of students scoring Novice, and increasing the number/percentage of students scoring Proficient and Distinguished, the Novice bars (the first three bar charts, reflecting Novice-Nonperformance, medium, and high) should steadily decrease in size as one views the chart across years. The Proficient and Distinguished bars (last two bar charts) should show the opposite pattern, steadily increasing in size across the years. Whether or not these two separate goals (increasing percentages of Proficient and Distinguished scores while reducing Novice scores) are being achieved by a school is readily seen by simply viewing the pattern of bars.


SPRING 2004
KENTUCKY PERFORMANCE REPORT
READING TREND DATA
Number and Percent
School: Any High School
District: Any District
Code: 999888
Grade: 10
Kentucky Department of Education
Novice - Non-performance
Novice - Medium
Novice - High
Apprentice - Low
Apprentice - Medium
Apprentice - High
Proficient
Distinguished
The horizontal bar represents the percent of students scoring at a performance level within a particular year. The number to the left of the bar represents the number of students upon which the percentage is based. Percentages may not sum to 100% due to rounding.
Run Date: 08/11/2004
Page: 8


The 0 – 100% percentage scale is on the horizontal axis.
Grade at which indicated Core Content areas are tested
The number of students at each performance level is printed to the left of the corresponding bar.
Data for years 1999 – 2004 are presented within each performance level.
The percentage of students at each performance level is printed to the right of the bar.
The length of each bar is proportional to the percentage it represents.
SPRING 2004
KENTUCKY PERFORMANCE REPORT
READING TREND DATA
Number and Percent
School: Any High School
District: Any District
Code: 999888
Grade: 10
The horizontal bar represents the percent of students scoring at a performance level within a particular year. The number to the left of the bar represents the number of students upon which the percentage is based. Percentages may not sum to 100% due to rounding.
Run Date: 08/11/2004
Page: 8

Note that the trend data for **writing** has two pages, because writing performance is evaluated in two ways: the Writing Portfolio and the on-demand writing prompt. Each of these pages displays the same information on performance levels as the other content areas, with the exception that writing is scored using only four performance levels, i.e., NAPD. For writing, the Novice and Apprentice levels of performance are *not* subdivided into three levels. Note that Writing Portfolio scoring was either done by teachers who scored the portfolios at the school level or by audit scorers (if the school participated in the Writing Portfolio audit at grades 4, 7 and 12). The assessment contractor scored the on-demand writing prompt.

Some important questions about content trends that school personnel may want to ask when examining the bar-chart patterns include:

- What is the direction of the trend within each performance category?
- Do you see overall reduction (top-heavy bars) in Novice and Low Apprentice categories?
- Do you see an overall increase (bottom-heavy bars) in Proficient and Distinguished categories?
- What about Medium and High Apprentice categories?

Cluster of Eight (8) Content Domain Reports

- Trend Data: Number and Percent
- ***Content Area Sub-Domain***
- Core Content (section-item scores)
- Student Questionnaire
- Disaggregation Performance Level Percents
- Disaggregation Index Trends
- Mean Scale Score/Standard Deviation
- Scale Score Data Disaggregation

Sub-Domain

An example of the Sub-Domain report, the second page of the "cluster" of reports for each content area -- reading, mathematics, science, social studies, arts and humanities and practical living/vocational studies as well as on-demand writing -- is provided on page 52. The Sub-Domain report presents the school and state mean for groups of items that measure each sub-domain of a content area. In addition it displays line graphs, showing the position of the sub-domain means on the 0 – 4 measurement scale. The number of items contributing to each school and state sub-domain mean includes both multiple-choice and open-response items. (Note that the multiple-choice items have been transformed from the 0 to 1 (p-value) scale to the open-response item raw-score scale of 0 to 4.) In addition, multiple-choice items are weighted 1/3 and open-response 2/3 to reflect the instructional importance

of the open-response items and to provide item-mean scores (both school and state) that reflect the same weighting used in accountability calculations.

Remember that the open-response 0 – 4 scoring scale does *not* reflect performance standards (NAPD). Kentucky performance standards can only be applied to *broader* samples of student work, such as an entire test.

One item alone does not allow students to demonstrate the full range of knowledge and skills reflected in a performance standard.

- Multiple Choice: 0 or 1 (wrong or right)
- Open Response: 0 – 4.

Each correct multiple-choice answer (in the sub-domain) is first assigned a score of 1. To create the sub-domain score the multiple-choice (MC) total is multiplied by 4, weighted by 1/3 and then combined with the summed open-response (OR) scores weighted by 2/3. Finally, the two weighted sums are added:

Sub-Domain Total = 1/3 (4 x MC Total) + 2/3 (OR Total)

The weighting is done to reflect the relative importance of open-response item performance in Kentucky accountability.

Important Point

Note: *It is very important that the school mean for each sub-domain **ONLY** be compared to its respective state mean and not "vertically" compared to other sub-domain mean item scores.*

Comparing raw–score results between sub-domains is *not* valid, because raw scores do not take the difficulty of the items into account. It would be like comparing measurements based on different-size units – like comparing inches to centimeters without converting.

Item means across sub-domains have *not* been equated or "linked" and thus differences in item difficulty have not been taken into account.

More on Raw-Score Scales

The scale used to measure achievement on the KCCT is an equal-interval scale that takes into consideration item characteristics such as item difficulty. Underlying the equal-interval-scale, however, is a **raw-score scale**, from which the equal-interval scale is constructed using a mathematical transformation. The weighting

procedure, discussed above, does not create the equal-interval scale. It merely adjusts the raw scores to reflect the importance of the open-response items. Content sub-domain scores are still *raw-score* results.

The school or district sub-domain mean is represented by a dot.

The standard error band around the sub-domain mean looks like an 'I' turned on its side:

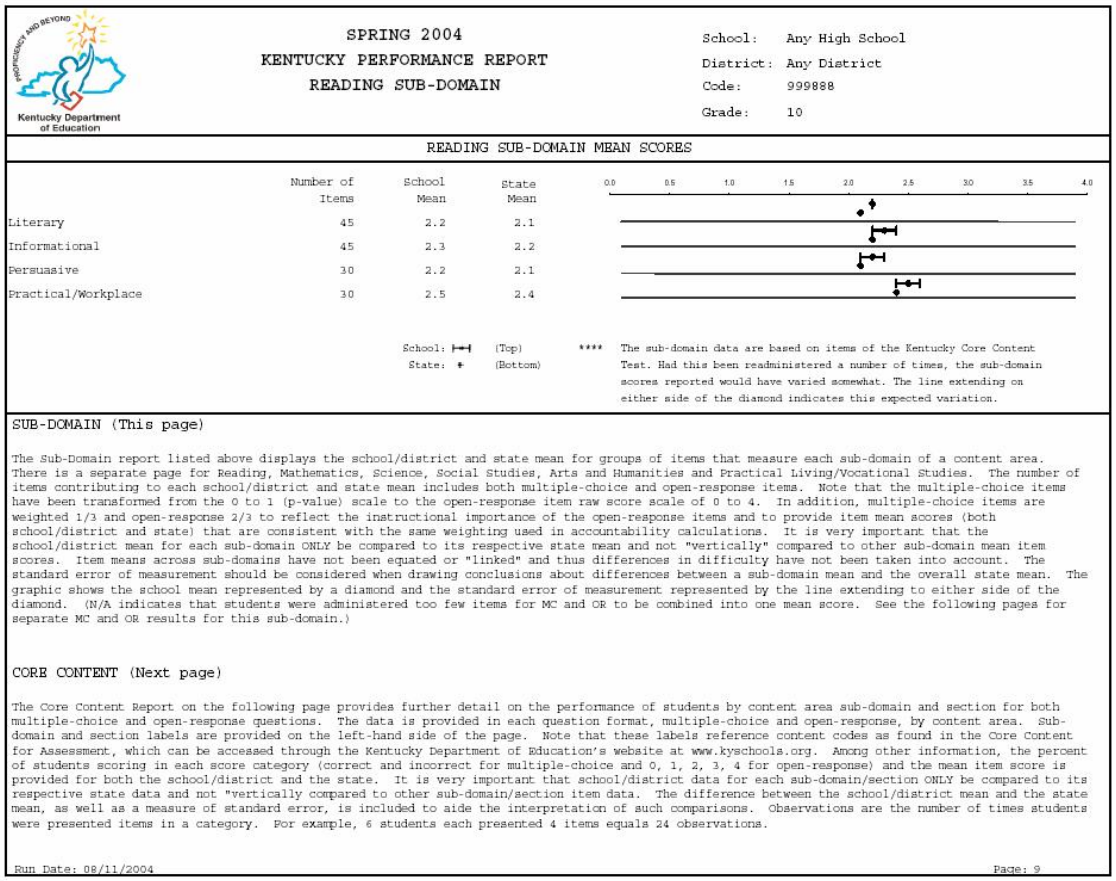
The state mean is represented by a diamond, positioned a bit lower than the dot.

It is inappropriate to compare the magnitude of raw-score results in different sub-domains, because measurement of the two domains are not based on equal-sized units. Raw-score results are like chunks of knowledge (or skills). Two chunks are not easily compared to 3 or 10 chunks, because we don't know the size of the units in the chunks. Therefore, the distance between chunk sizes is unknown.

Back to Content Sub-Domain Scores

The standard error of measurement, denoted by the bar running through the school mean, should be considered when drawing conclusions about differences between the school sub-domain mean and the state sub-domain mean.

The mean sub-domain scores can be used to identify the sub-domain areas that a school may want to target for future improvement. In the example below, the school mean is larger than the state mean for each sub-domain. In each case where the school standard error "bar" overlaps the state mean "diamond," the difference between the two values can be attributed to random error – it is not large enough to warrant further examination. The Core Content pages of the KPR, discussed next, can provide further insight into the strengths and weaknesses of a content area.



SPRING 2004
KENTUCKY PERFORMANCE REPORT
READING SUB-DOMAIN

School: Any High School
District: Any District
Code: 999888
Grade: 10

READING SUB-DOMAIN MEAN SCORES

	Number of Items	School Mean	State Mean
Literary	45	2.2	2.1
Informational	45	2.3	2.2
Persuasive	30	2.2	2.1
Practical/Workplace	30	2.5	2.4

School: ⊢⊣ (Top)
State: ✦ (Bottom)

**** The sub-domain data are based on items of the Kentucky Core Content Test. Had this been readministered a number of times, the sub-domain scores reported would have varied somewhat. The line extending on either side of the diamond indicates this expected variation.

SUB-DOMAIN (This page)

The Sub-Domain report listed above displays the school/district and state mean for groups of items that measure each sub-domain of a content area. There is a separate page for Reading, Mathematics, Science, Social Studies, Arts and Humanities and Practical Living/Vocational Studies. The number of items contributing to each school/district and state mean includes both multiple-choice and open-response items. Note that the multiple-choice items have been transformed from the 0 to 1 (p-value) scale to the open-response item raw score scale of 0 to 4. In addition, multiple-choice items are weighted 1/3 and open-response 2/3 to reflect the instructional importance of the open-response items and to provide item mean scores (both school/district and state) that are consistent with the same weighting used in accountability calculations. It is very important that the school/district mean for each sub-domain ONLY be compared to its respective state mean and not "vertically" compared to other sub-domain mean item scores. Item means across sub-domains have not been equated or "linked" and thus differences in difficulty have not been taken into account. The standard error of measurement should be considered when drawing conclusions about differences between a sub-domain mean and the overall state mean. The graphic shows the school mean represented by a diamond and the standard error of measurement represented by the line extending to either side of the diamond. (N/A indicates that students were administered too few items for MC and OR to be combined into one mean score. See the following pages for separate MC and OR results for this sub-domain.)

CORE CONTENT (Next page)

The Core Content Report on the following page provides further detail on the performance of students by content area sub-domain and section for both multiple-choice and open-response questions. The data is provided in each question format, multiple-choice and open-response, by content area. Sub-domain and section labels are provided on the left-hand side of the page. Note that these labels reference content codes as found in the Core Content for Assessment, which can be accessed through the Kentucky Department of Education's website at www.kyschools.org. Among other information, the percent of students scoring in each score category (correct and incorrect for multiple-choice and 0, 1, 2, 3, 4 for open-response) and the mean item score is provided for both the school/district and the state. It is very important that school/district data for each sub-domain/section ONLY be compared to its respective state data and not "vertically compared to other sub-domain/section item data. The difference between the school/district mean and the state mean, as well as a measure of standard error, is included to aide the interpretation of such comparisons. Observations are the number of times students were presented items in a category. For example, 6 students each presented 4 items equals 24 observations.

Run Date: 08/11/2004 Page: 9

Sub-domain means are plotted on 0.0 - 4.0 scale.

Upper data point in center of '**I**' represents sub-domain school or district mean.

Purpose of the rotated '**I**' shaped bar is to mark the bounds of error around school or district sub-domain means.

Explanation of how sub-domain means are computed.

Lower data point represents sub-domain *state* mean.

This information concerns the following KPR page.

Some important questions your school personnel may want to ask about sub-domain scores include:

- How do your sub-domain means compare to state sub-domain mean scores? Do they exceed or fall short of the state average?
- Wrong Question: In which content sub-domain have we scored the highest/lowest?
- Right Question: In which content domain are we farthest above/below the state mean?
- Remember: Make comparisons *within sub-domains* not *between sub-domains.* Compare your school's sub-domain mean to the state sub-domain mean, not to your school's mean in another sub-domain.

Core Content

Cluster of Eight (8) Content Domain Reports

- Trend Data: Number and Percent
- Content Area Sub-Domain
- ***Core Content*** (section-item scores)
- Student Questionnaire
- Disaggregation Performance Level Percents
- Disaggregation Index Trends
- Mean Scale Score/Standard Deviation
- Scale Score Data Disaggregation

An example of the Core Content reading report is presented below. It provides further detail on the performance of students by content area sub-domain and section for both open-response and multiple-choice questions. The data provided for each question format (i.e., multiple choice and open response) is very similar. Sub-domain and section labels are provided on the left-hand side of the page. Note that these labels reference content codes as found in the *Core Content for Assessment*. Among other information, the percent of students scoring in each score category (correct and incorrect for multiple choice and 0, 1, 2, 3, 4 for open response) and the mean item score across items within the category is provided for both the school or district and the state.

> ***Note: All school/district comparisons within a sub-domain or section must be made with respect to the state's performance within the same content area sub-domain or section.***

The difference between the school mean and the state mean, as well as the standard error, is included to aid interpretation of the comparisons.

The *Core Content for Assessment* is organized in the following manner:

- Content area (e.g., MATHEMATICS)
- Sub-domain (e.g., 1.x.x - Number/Computation)
- Section (e.g., 1.1.x – Concepts; 1.2.x – Skills; 1.3.x – Relationships)
- Bullet (not provided on KPR at this level)

For example, for mathematics, the Core Content codes are:

MATHEMATICS:

1.x.x - Number/Computation
1.1.x - Concepts
1.2.x - Skills
1.3.x – Relationships

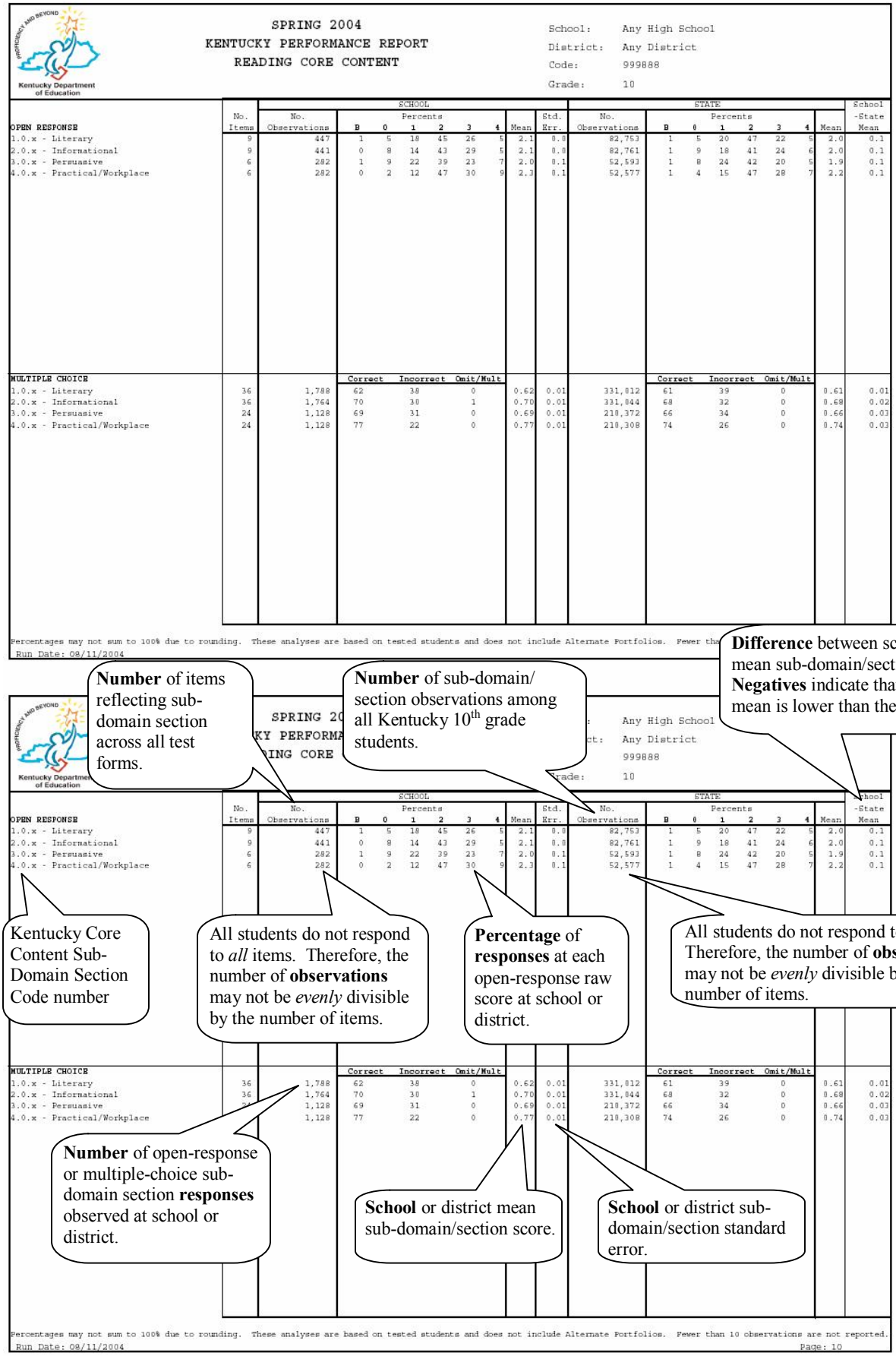
2.x.x - Geometry/Measurement
2.1.x - Concepts
2.2.x - Skills
2.3.x – Relationships

3.x.x - Probability/Statistics
3.1.x - Concepts
3.2.x - Skills
3.3.x – Relationships

4.x.x - Algebraic Ideas
4.1.x - Concepts
4.2.x - Skills
4.3.x – Relationships

Beginning last year, a core content page for on-demand writing was reported. It is only slightly different from the other core content pages. NAPD percentages are provided for the following:

- Respond to text, graphic or chart
- Persuade
- Narrate an event for a purpose.



SPRING 2004
KENTUCKY PERFORMANCE REPORT
READING CORE CONTENT

School: Any High School
District: Any District
Code: 999888
Grade: 10

OPEN RESPONSE	No. Items	SCHOOL No. Observations	SCHOOL Percents B	0	1	2	3	4	SCHOOL Mean	SCHOOL Std. Err.	STATE No. Observations	STATE Percents B	0	1	2	3	4	STATE Mean	School -State Mean
1.0.x - Literary	9	447	1	5	18	45	26	5	2.1	0.0	82,753	1	5	20	47	22	5	2.0	0.1
2.0.x - Informational	9	441	0	9	14	43	29	5	2.1	0.0	82,761	1	9	18	41	24	6	2.0	0.1
3.0.x - Persuasive	6	282	1	9	22	39	23	7	2.0	0.1	52,593	1	8	24	42	20	5	1.9	0.1
4.0.x - Practical/Workplace	6	282	0	2	12	47	30	9	2.3	0.1	52,577	1	4	15	47	28	7	2.2	0.1

MULTIPLE CHOICE			SCHOOL Correct	SCHOOL Incorrect	SCHOOL Omit/Mult			STATE Correct	STATE Incorrect	STATE Omit/Mult		
1.0.x - Literary	36	1,788	62	38	0	0.62	0.01	331,012	61	39	0	0.61	0.01
2.0.x - Informational	36	1,764	70	30	1	0.70	0.01	331,044	68	32	0	0.68	0.02
3.0.x - Persuasive	24	1,128	69	31	0	0.69	0.01	210,372	66	34	0	0.66	0.03
4.0.x - Practical/Workplace	24	1,128	77	22	0	0.77	0.01	210,308	74	26	0	0.74	0.03

Percentages may not sum to 100% due to rounding. These analyses are based on tested students and does not include Alternate Portfolios. Fewer than 10 observations are not reported.
Run Date: 08/11/2004
Page: 10

Number of items reflecting sub-domain section across all test forms.

Number of sub-domain/ section observations among all Kentucky 10th grade students.

Difference between school and state mean sub-domain/section scores. **Negatives** indicate that the school mean is lower than the state mean.

Kentucky Core Content Sub-Domain Section Code number

All students do not respond to *all* items. Therefore, the number of **observations** may not be *evenly* divisible by the number of items.

Percentage of **responses** at each open-response raw score at school or district.

All students do not respond to *all* items. Therefore, the number of **observations** may not be *evenly* divisible by the number of items.

Number of open-response or multiple-choice sub-domain section **responses** observed at school or district.

School or district mean sub-domain/section score.

School or district sub-domain/section standard error.

During test development, Kentucky teachers come together in Content Advisory Committees (CACs) to both write and eventually select items for the Kentucky Core Content Tests. These committees generally include around eight to ten teachers per content area per assessed grade level. The content codes in the *Core Content for Assessment* are applied to specific items during the development process. In other words, Kentucky teachers working on the development teams literally must come to an agreement with respect to the specific elements of the core content to which an item refers. This, along with the Kentucky Core Content Test Blueprint, helps ensure representative coverage of the core content. The Core Content Report shows how students performed on specific areas linked directly to the Core Content. Informal feedback to the Department suggests that principals and teachers find this report very useful for evaluating content alignment and instructional practices.

The main features of the report include:

All students do not respond to *all* items in each sub-domain. Therefore, the number of **observations** may not be *evenly* divisible by the number of items.

- The number of test items in the specific core content area.
- The number of times students were presented items (or had an opportunity to respond to items) in a category (labeled "No. Observations" for number of observations). For example, six students, each presented with four items, means that the total number of observations is 24. Since all students are not presented with all items in each sub-domain, the total number of observations may not be evenly divisible by the number of students. For example, 4 students may have been presented with 4 items (4 x 4 = 16) while 2 others were presented with three each (2 x 3 = 6) for a total of 22 observations.
- The percent of students scoring in each score category (correct and incorrect for multiple choice and B, 0, 1, 2, 3, 4 for open response).
- The mean item score across items within the specific area for both the school/district and the state. The mean score ranges from 0.00 to 1.00 for multiple choice and from 0.0 to 4.0 for open response.
- In the State section, the difference between the school mean and the state mean is calculated.

Some important strategies school personnel may want to consider include[3]:

[3] The Department would like to thank Ken Draut for his contribution to the Core Content section of this Interpretive Guide.

- Compare the school mean with the state mean and look for differences (look at the last column: School - State Mean). Where do you have negative values that are greater than the standard error? What is important? You could think of a .4 or higher as important; however, the difference might be relative to each school. For instance, if my school was a full point above the state in all areas except one, I would probably concentrate on that area even if it was only different by 0.1.

- Review your percentages of B and 0. Compare these percentages to the state percentages. A score under B indicates a blank answer while a score under 0 indicates answers that were pretty far off task. Are there items that really show up with large percentages of B or 0s? If yes, what is the definition of the item? Is there a reason this item should be this difficult? How do we teach these topics? What is expected of the student in the classroom? How do we assess content like this?

- Look for school means that are high. These areas are places where students did very well. What is the definition of these items? Is there a reason why students did so well? How do we teach these topics? What is expected of the student in the classroom? How do we assess? What implications does this report have for curriculum alignment?

Several cautions to consider while using the Core Content pages of the KPR include:

- Always check the number of test items that measure a Core Content area. Two things may be happening. First, some items are counted as measuring more than one Core Content area. Second, items may be coming from just one or two forms of the test. It's best to remember that some scores come from a limited number of items and a limited number of students.

- Teachers have a full year perspective on students' ability and the content taught. Teachers' professional judgment should always be taken into account when analyzing test scores.

- Before making any final decisions about curriculum and instruction, please take into account multiple sources of data and ideas. It would be unwise to make any decisions based on one piece of data. Use this report in conjunction with other insights and data.

As indicated above, the Core Content report continues the analysis begun on the Sub-Domain page, further refining it by considering the following:

(1) **Item format**: Data collected using open response-items versus data collected using multiple-choice items;

(2) **Sub-domain section:** Data reflecting each sub-domain of the *Core Content for Assessment* further analyzed by *sub-domain section.*

Like the sub-domain report, the Core Content report presents *raw score* results. Since the multiple-choice and open-response item means presented on this report are based on raw scores, item difficulty and other characteristics have not been taken into account. Therefore, the mean score of one sub-domain cannot be validly compared with that of another sub-domain. To do so would be like comparing lengths of 3 and 4 without knowing the unit of measurement – inches, centimeters, or an unknown scale.

Notice that the school and state sub-domain item means for open-response and multiple-choice items are slightly different than those presented on the Sub-Domain Report. This is because the Sub-Domain Report presents results for both item-format types combined.

School staff might review items within sub-domains as follows:

- **Note the number of test items that reflect the sub-domain section.** Larger numbers of items are associated with stronger validity and higher reliability. Remember that each year items are *sampled* from the content-domain item pools. It is thought that each year's test represents a *balanced coverage* of each sub-domain.
- **Note the number of student responses.** Larger numbers of student responses (regardless of the number of items) are associated with greater reliability at the sub-domain section level.
- **Check the frequency of blanks and zeros.** All schools should strive to minimize blank test booklets and nonsense responses on the part of students. Recall that '0' reflects an off-target or irrelevant response.
- **Compare each sub-domain section school/district mean for open-response and multiple-choice items to that of the state.** When a school's performance is lower than that of the state, the sign of the difference under School-Minus-State-Mean (far right column) is negative, otherwise it is positive. Note that the state mean *is subtracted from* the school mean as in the following examples:

Sub-Domain	School Mean	State Mean	School Minus State Mean	Sign of Difference	Conclude
Literary	1.9	2.0	1.9 – 2.0 = -.1	Negative	**School < State**
Informational	1.8	1.9	1.8 – 1.9 = -.1	Negative	**School < State**
Persuasive	2.0	2.0	2.0 – 2.0 = 0	No Diff.	**School = State**
Practical/WP	2.0	2.1	2.0 – 2.1 = -.1	Negative	**School < State**

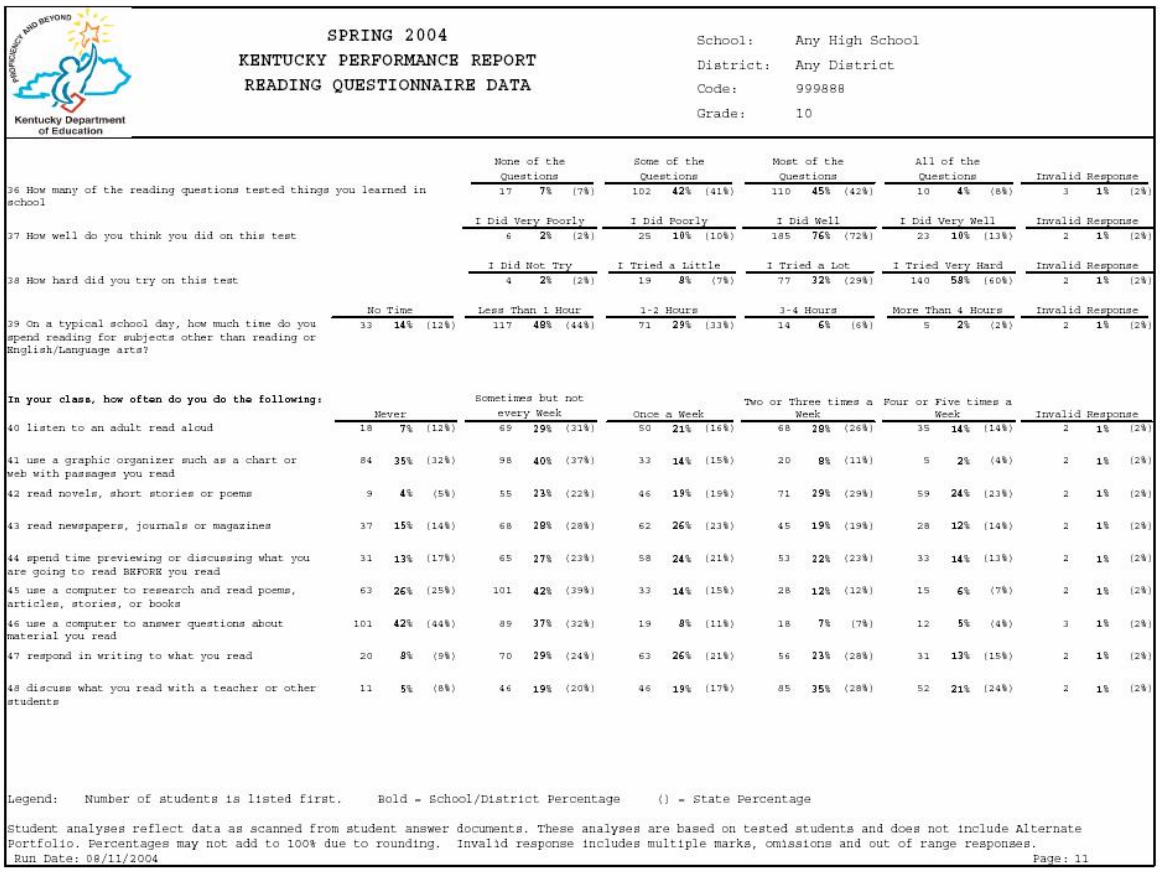
Questionnaire Data

Cluster of Eight (8) Content Domain Reports

- Trend Data: Number and Percent
- Content Area Sub-Domain
- Core Content (section-item scores)
- ***Student Questionnaire***
- Disaggregation Performance Level Percents
- Disaggregation Index Trends
- Mean Scale Score/Standard Deviation
- Scale Score Data Disaggregation

In addition to the academic questions, students answered a number of questionnaire items in 2004. The fourth page of the "cluster" of reports for each content area provides student questionnaire data relevant to the content area. All questionnaire information is based on the number of students who actually answered each questionnaire item and may not represent all students who took the test. Questionnaire responses can be useful for studying students' perspective about their test performance as well as about instructional practices in the content area.

See the legend at the bottom of the Questionnaire Data page to better understand this report. Basically, to the right of each questionnaire item, three values are given for each response category. The first value, appearing under the first response category, is the number of students who responded to a question by selecting that response category (e.g., "Sometimes but not every week," "Once a week," etc.). The second value is **bolded** and gives the percent response for the school. The third value, given in parenthesis ( ), is the state percent for each item. Note that responses under the "Invalid Response" column are for students who did not mark an answer, marked an out-of-range response, or marked more than one answer to a questionnaire item.



SPRING 2004
KENTUCKY PERFORMANCE REPORT
READING QUESTIONNAIRE DATA

School: Any High School
District: Any District
Code: 999888
Grade: 10

	None of the Questions			Some of the Questions			Most of the Questions			All of the Questions			Invalid Response		
36 How many of the reading questions tested things you learned in school	17	7%	(7%)	102	42%	(41%)	110	45%	(42%)	10	4%	(8%)	3	1%	(2%)
	I Did Very Poorly			I Did Poorly			I Did Well			I Did Very Well			Invalid Response		
37 How well do you think you did on this test	6	2%	(2%)	25	10%	(10%)	185	76%	(72%)	23	10%	(13%)	2	1%	(2%)
	I Did Not Try			I Tried a Little			I Tried a Lot			I Tried Very Hard			Invalid Response		
38 How hard did you try on this test	4	2%	(2%)	19	8%	(7%)	77	32%	(29%)	140	58%	(60%)	2	1%	(2%)
	No Time			Less Than 1 Hour			1-2 Hours			3-4 Hours			More Than 4 Hours			Invalid Response		
39 On a typical school day, how much time do you spend reading for subjects other than reading or English/Language arts?	33	14%	(12%)	117	48%	(44%)	71	29%	(33%)	14	6%	(6%)	5	2%	(2%)	2	1%	(2%)

In your class, how often do you do the following:	Never			Sometimes but not every Week			Once a Week			Two or Three times a Week			Four or Five times a Week			Invalid Response		
40 listen to an adult read aloud	18	7%	(12%)	69	29%	(31%)	50	21%	(16%)	68	28%	(26%)	35	14%	(14%)	2	1%	(2%)
41 use a graphic organizer such as a chart or web with passages you read	84	35%	(32%)	98	40%	(37%)	33	14%	(15%)	20	8%	(11%)	5	2%	(4%)	2	1%	(2%)
42 read novels, short stories or poems	9	4%	(5%)	55	23%	(22%)	46	19%	(19%)	71	29%	(29%)	59	24%	(23%)	2	1%	(2%)
43 read newspapers, journals or magazines	37	15%	(14%)	68	28%	(28%)	62	26%	(23%)	45	19%	(19%)	28	12%	(14%)	2	1%	(2%)
44 spend time previewing or discussing what you are going to read BEFORE you read	31	13%	(17%)	65	27%	(23%)	58	24%	(21%)	53	22%	(23%)	33	14%	(13%)	2	1%	(2%)
45 use a computer to research and read poems, articles, stories, or books	63	26%	(25%)	101	42%	(39%)	33	14%	(15%)	28	12%	(12%)	15	6%	(7%)	2	1%	(2%)
46 use a computer to answer questions about material you read	101	42%	(44%)	89	37%	(32%)	19	8%	(11%)	18	7%	(7%)	12	5%	(4%)	3	1%	(2%)
47 respond in writing to what you read	20	8%	(9%)	70	29%	(24%)	63	26%	(21%)	56	23%	(28%)	31	13%	(15%)	2	1%	(2%)
48 discuss what you read with a teacher or other students	11	5%	(8%)	46	19%	(20%)	46	19%	(17%)	85	35%	(28%)	52	21%	(24%)	2	1%	(2%)

Legend: Number of students is listed first. Bold = School/District Percentage () = State Percentage

Student analyses reflect data as scanned from student answer documents. These analyses are based on tested students and does not include Alternate Portfolio. Percentages may not add to 100% due to rounding. Invalid response includes multiple marks, omissions and out of range responses.
Run Date: 08/11/2004 Page: 11

Questions about test and classroom instructional events.

Number and percentage (bold) of students at school (or district) selecting each response category.

"Invalid response" number includes blanks (no response) and selection of more than one response category.

Percentage of students in state (in parentheses) selecting this response.

Note: Alternate portfolio students do not participate in survey.

Some important questions school personnel may want to consider:

- Is there a notable difference between the school and state percentages on each item?
- How many students chose each item?
- How does observed student performance compare to students' perceptions of their performance?
- What questions would you ask to probe deeper into students' understanding of their performance?
- How do students' perception of instructional practices compare to teachers' perceptions of their practices?
- Are there implications for instructional practices?

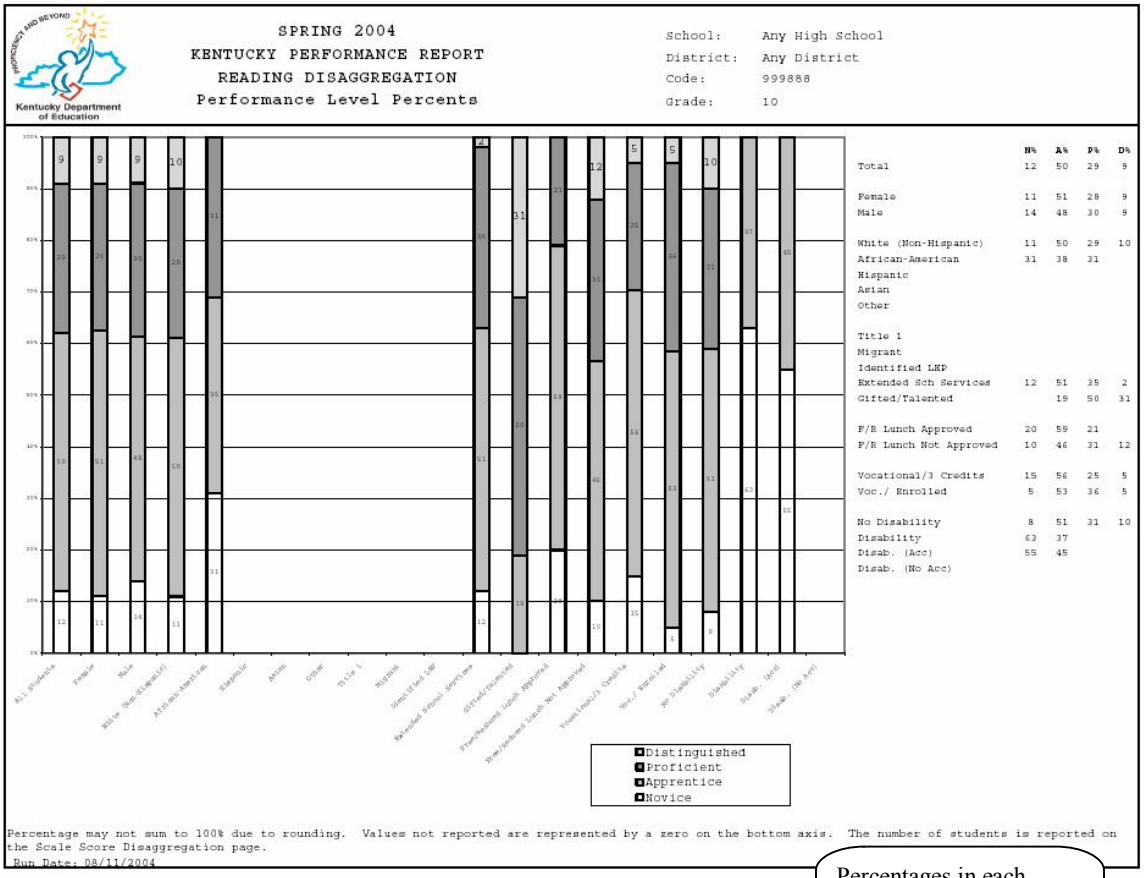
Disaggregation, Performance Level Percents

Cluster of Eight (8) Content Domain Reports

- Trend Data: Number and Percent
- Content Area Sub-Domain
- Core Content (section-item scores)
- Student Questionnaire
- ***Disaggregation Performance Level Percents***
- Disaggregation Index Trends
- Mean Scale Score/Standard Deviation
- Scale Score Data Disaggregation

The fifth page of the "cluster" of reports for each content area (including on-demand writing and the writing portfolio) provides stacked bar charts presenting a side-by-side comparison of the percentage of students achieving Distinguished, Proficient, Apprentice and Novice for a number of important student groups. A table displaying the data is also provided. KCCT data are disaggregated based upon the following:

- Gender (Female & Male)
- Ethnicity (White, African-American, Hispanic, Asian, Other)
- Title I (program participation)
- Migrant (program participation)
- Limited English Proficiency (program participation)
- Extended School Service (program participation)
- Gifted and Talented (program participation)
- Free or Reduced Lunch Approved (price of lunch reduced)
- Free or Reduced Lunch Non-Approved (price not reduced)
- Vocational Education (3 credits)
- Vocational Education (enrolled)
- No Disability (students without disabilities)
- Disability (students with disabilities)
- Disability (Accommodations)
- Disabilities (No Accommodations)



Percentages in each performance category are displayed in this table as well as in stacked bars.

Percentage scale is on vertical axis.

Top section of each bar represents percentage of Distinguished test scores.

Percentages in performance categories add to 100%, ± rounding error.

No data are displayed where group consists of **fewer than 10 students.**

This key explains the meaning of shading on bars.

Percentages in the 'Total' bar match those presented in the Trend Data bar chart.

These pages of the KPR provide schools and districts with the disaggregation of student performance data based on the demographic data requested from each student in their Student Test Booklet. An example of the Disaggregation, Performance Level Percents page is presented on the preceding page.

One page of stacked bar charts is provided for each content area (Reading, Mathematics, Science, Social Studies, Arts and Humanities and Practical Living/Vocational Studies). The stacked bar charts present a side-by-side comparison of the percentage of students achieving Distinguished, Proficient, Apprentice and Novice for the student groups previously noted. The graphs produced for each content area provide a powerful representation of how each student group is performing on the assessment compared to other student groups. If large differences exist, especially with respect to the percentage of Novice students, the differences are clearly visible upon inspection of the graphs. As such, this series of stacked bar charts may be useful for communicating disaggregation data not only to school personnel, but also to other stakeholder groups, including parents and business leaders.

Please note:

- The accuracy of disaggregated results depends on the accuracy of entries in student test booklets.
- No data disaggregation results appear in the KPR when: (1) fewer than 10 students comprise the demographic group; (2) all students in the group perform alike (score in the same performance category).

Two cautionary notes should be kept in mind when reviewing disaggregation data for schools: 1) the accuracy of the disaggregated data is dependent on how schools filled in this information on the Student Test Booklets and 2) if fewer than ten students were reported in a school or district for a category, or more than ten students scored in a category but all these students scored at the same performance level (e.g., all were Apprentice), no disaggregated data were provided to ensure the protection of the privacy of individual students. With these cautions in mind, data disaggregation information can be helpful to schools and districts in evaluating student performance in relation to special educational programs, e.g., Title I, Extended School Services (ESS). This information can also be used in consolidated planning to address issues relevant to equity across diverse student groups.

The Title I disaggregation has a few characteristics unique to the Title I program, which need to be noted. If a school participates in a school-wide Title I program, the disaggregation of student performance is for all students in the school. If a school participates in a Title I Targeted Assistance program, only the students participating in this program are part of the disaggregation data. The district report disaggregates data for all students who participate in either a school-wide or targeted assistance Title I program in any school in the district.

Cluster of Eight (8) Content Domain Reports

- Trend Data: Number and Percent
- Content Area Sub-Domain
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- Student Questionnaire
- Disaggregation Performance Level Percents
- ***Disaggregation Index Trends***
- Mean Scale Score/Standard Deviation
- Scale Score Data Disaggregation

Disaggregation Index Trends - Reading

An example of the Disaggregation Index Trends page is provided below. This page of the KPR is new for 2004. While the Kentucky Department of Education provides a separate report for NCLB, this page of the KPR gives content area index treads for important NCLB subpopulations not reported elsewhere in the KPR. This one-page report presents content area index comparisons/trends for multiple years, *within* the following student subpopulations:

- Gender (Female and Male)
- Ethnicity (White, African-American, Hispanic, Asian)
- Free or Reduced Lunch Approved (price of lunch reduced)
- Free or Reduced Lunch Non-Approved (price *not* reduced)
- Non-Limited English Proficiency
- Limited English Proficiency For NCLB
- Exit LEP 2 Years Prior
- Identified Limited English Proficiency
- No Disability (students without disabilities)
- Disability (students with disabilities)
- Disability (Accommodations)
- Disability (No Accommodations)

Non-Limited English Proficiency refers to students who are not limited English proficient (i.e., native English speakers and speakers of English as a second language who demonstrate no need for LEP services). Limited English Proficiency for NCLB is comprised of LEP students whose scores are included in AYP. Exit LEP Two Years Prior refers to students who once received LEP services, but who exited the LEP program two years (or more) prior to the current year and are no longer included in the NCLB AYP calculations. (Recall that schools and districts include for two years in their LEP AYP calculations the scores of students who exit the LEP program as a result of having demonstrated English language proficiency.) The group, Identified Limited English Proficiency, combines the two LEP student groups -- those included in LEP for NCLB and those who have exited the LEP program and are not included in AYP.

The No Disability group consists of students who are *not* disabled, while Disability consists of students who are disabled. Among disabled students are two subgroups: those whose IEPs provide for accommodations during instruction and assessment and those whose IEPs have no such provisions.

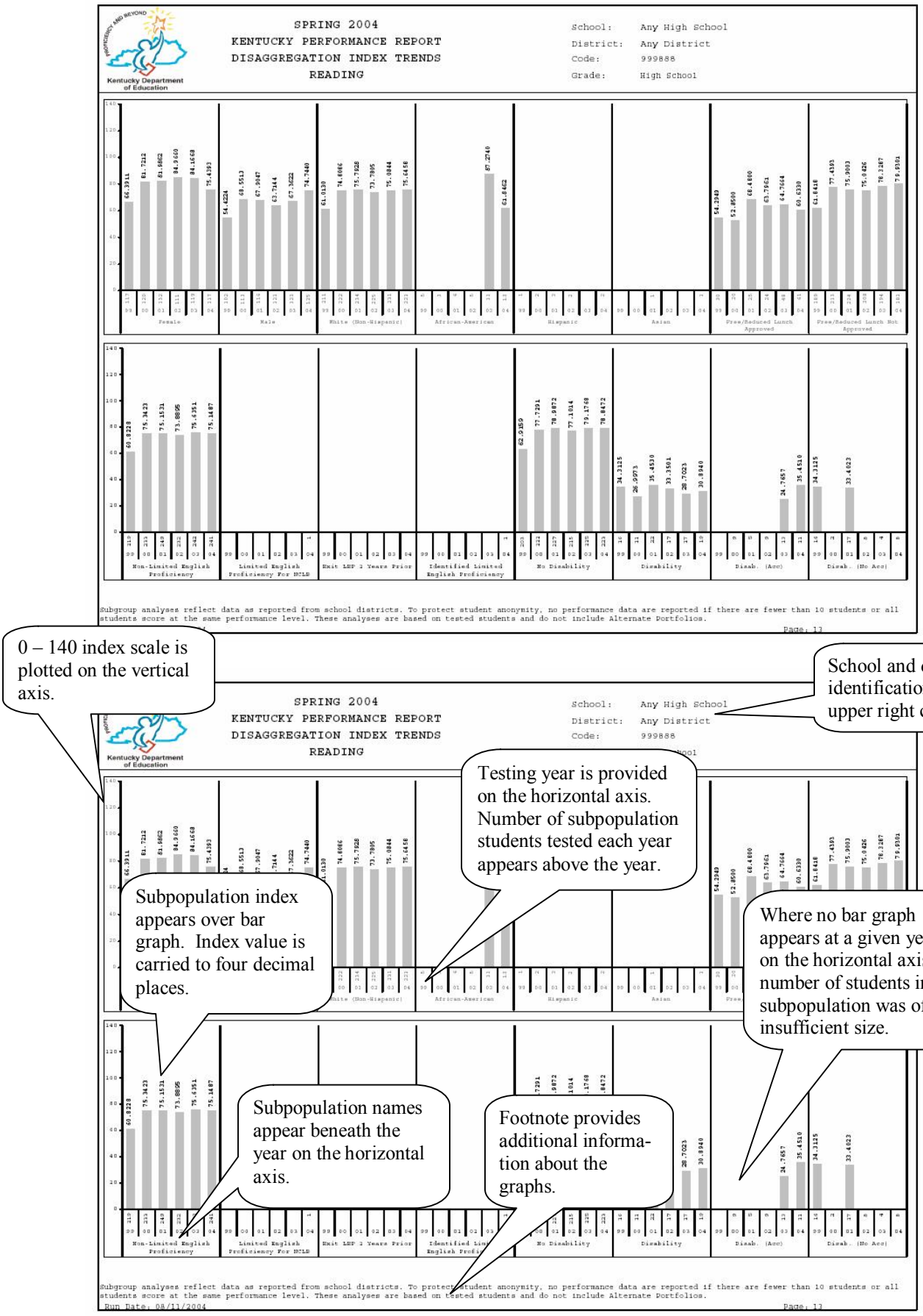
An example of the Disaggregation Index Trends Reading page is provided on page 66. A one-page report is provided for each of the

seven Kentucky Core Content areas. The bar graphs display reading trends for multiple years *within* student subpopulations. Vertical bars reflecting each subpopulation allow comparison of content area indices by year from 1999 through 2004, as indicated on the horizontal axis. Index values printed above each bar are based on the 0 to 140 scale displayed on the vertical axis. Index values for each year are rounded to the fourth decimal place. Notice that directly beneath each bar, the number of subpopulation students is indicated. This allows for replication of the disaggregation content area index.

The Disaggregation Index Reading Trend for high school girls indicates that this subpopulation has suffered a considerable drop – almost nine points -- in 2004. The current reading index of 75.4393 exceeds the 1999 index of 66.3911, but is considerably lower than the 2000 index of 81.7212. Boys on the other hand seem to have gained ground in 2004, their index having increased from 67.3622 in 2003 to 74.7440 in 2004. The gender gap has been narrowed from about 16.80 last year to 0.69 this year. This is, of course, not the scenario that was intended in the school's closing-the-gap efforts. Rather, the point was to increase the boys' reading performance to or beyond that of the girls (while maintaining or increasing the girls' achievement).

Some important questions you may want to ask about content area disaggregated index trends in your school or district include:

- How close are your content-area disaggregated academic indices to 100?
- Are your disaggregated index trends marking a trajectory that ends at 100 or higher in 2014?
- What subpopulation indices show considerable growth in the content area?
- What subpopulation indices show consistent growth in the content area?
- What subpopulation indices show irregular, insufficient, no growth, or even decline in the content area?
- What questions might be asked of teachers and others to help explain the performance patterns shown in the scores?
- Should one or more subpopulations be targeted for instructional intervention in this content area?
- With respect to groups that have been targeted for instructional intervention, has the program shown results?


SPRING 2004
KENTUCKY PERFORMANCE REPORT
DISAGGREGATION INDEX TRENDS
READING
School: Any High School
District: Any District
Code: 999888
Grade: High School
Kentucky Department of Education
Female
Male
White (Non-Hispanic)
African-American
Hispanic
Asian
Free/Reduced Lunch Approved
Free/Reduced Lunch Not Approved
Non-Limited English Proficiency
Limited English Proficiency For NCLB
Exit LEP 2 Years Prior
Identified Limited English Proficiency
No Disability
Disability
Disab. (Acc)
Disab. (No Acc)
Subgroup analyses reflect data as reported from school districts. To protect student anonymity, no performance data are reported if there are fewer than 10 students or all students score at the same performance level. These analyses are based on tested students and do not include Alternate Portfolios.
Page: 13
0 – 140 index scale is plotted on the vertical axis.
School and district identification in upper right corner
Testing year is provided on the horizontal axis. Number of subpopulation students tested each year appears above the year.
Subpopulation index appears over bar graph. Index value is carried to four decimal places.
Where no bar graph appears at a given year, on the horizontal axis, the number of students in the subpopulation was of insufficient size.
Subpopulation names appear beneath the year on the horizontal axis.
Footnote provides additional information about the graphs.
Run Date: 08/11/2004

Cluster of Eight (8) Content Domain Reports

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- Student Questionnaire
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- Disaggregation Index Trends
- ***Mean Scale Score/Standard Deviation***
- Scale Score Data Disaggregation

Mean Scale Score/Standard Deviation

The seventh page of the "cluster" of reports for each content area provides descriptive statistics for student groups. Scale score means and their standard deviations are displayed graphically for a number of important student groups. An example of the Mean Scale Score/Standard Deviation page is presented below. One page of descriptive statistics is provided for each content area (Reading, Mathematics, Science, Social Studies, Arts and Humanities and Practical Living/Vocational Studies) except Writing.

Basic descriptive statistics usually involve a measure of central tendency (e.g., mean, median or mode) and a measure of dispersion (e.g., standard deviation or variance). The scale score arithmetic mean and standard deviation are given for the same student groups reported on other pages of the KPR. More specifically, a dot representing the student-group scale-score mean is plotted on the vertical axis for each student group (e.g., females, males). Surrounding each dot or scale-score mean is an interval that represents one standard deviation below the mean and one standard deviation above the mean, or approximately 68% of students in the group. This representation of scale score means and standard deviations provides a visual summary of the distribution of scores for each student group, side-by-side. If useful, one can actually visualize, or superimpose, a bell shaped curve over each graphed dot and interval, thus taking notice that the graphed values do represent student distributions of scale scores.

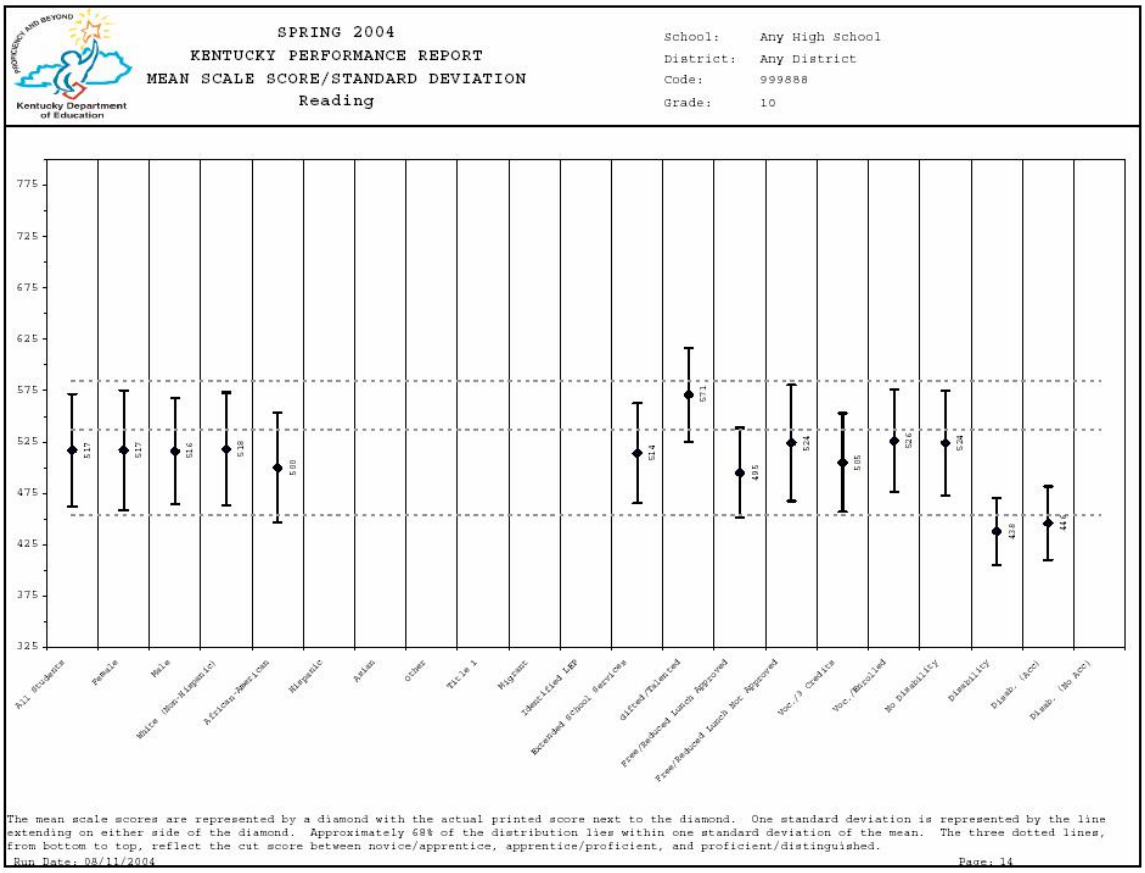
There is no mean scale-score/standard deviation page for writing, because writing scores are not converted to scale scores.

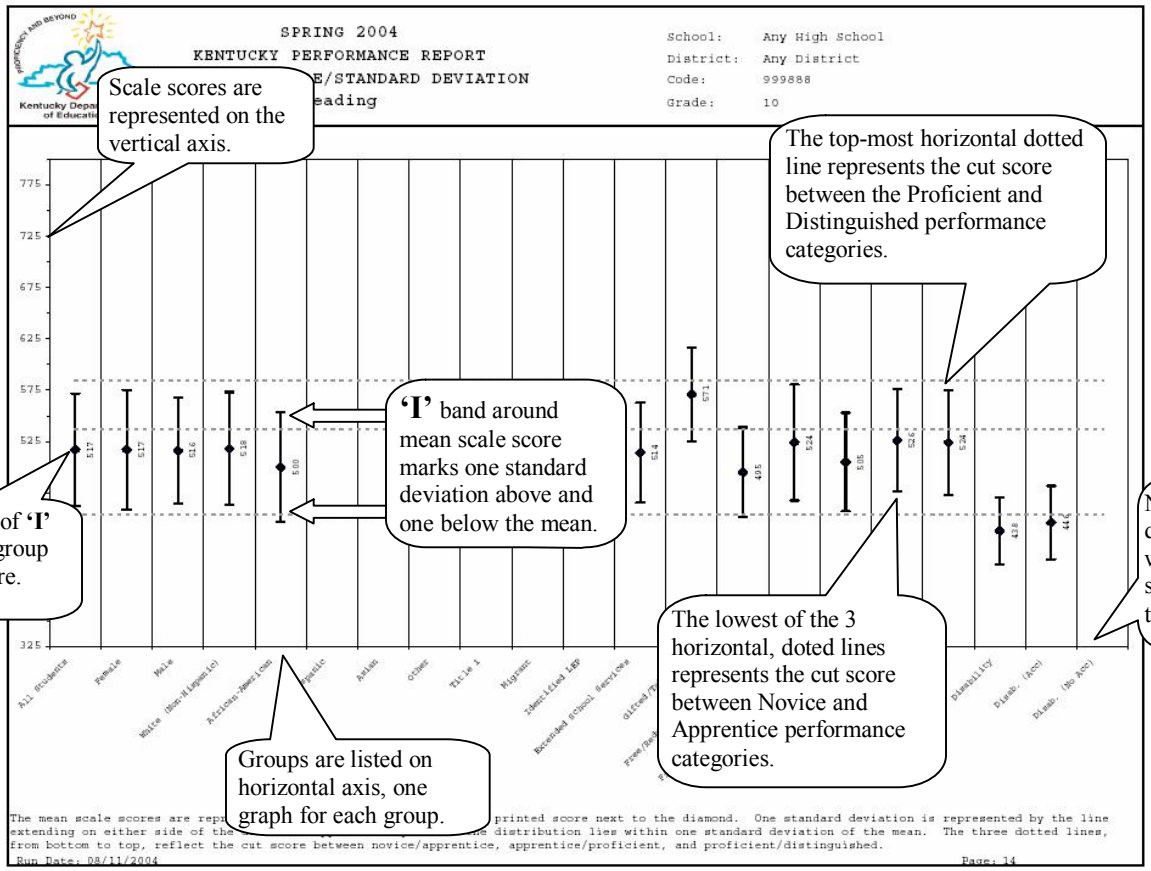
On the vertical axis, each of the horizontal lines going across the page is located at a scale-score point that represents a performance-standard cut point. Recall that this can be done because one page of descriptive statistics is provided for each content area and grade assessed. For example, one "reference" line is drawn across the page for the Novice/Apprentice cut point, one line for the Apprentice/Proficient cut point, and one line for the Proficient/Distinguished cut point. Note that separate lines could also be drawn for the Novice and Apprentice cut points that provide incremental credit (e.g., Apprentice Low, Medium and High).

One possible activity for teachers is to draw these additional lines to become more familiar with cut-points and where their students scored in relation to the performance categories. Viewing these "reference" lines across the page provides a strong visual for where the distribution of scores falls for each student group in relation to the state's student performance standards, and can provide direction for where resources need to be focused. The KCCT cut points for each content area and grade level are given in Appendix A. The Descriptions of performance standards for each content area and grade level can be found on the Kentucky Department of Education's website at http://www.education.ky.gov.

Some important questions school personnel may want to ask include:

- Which student groups have means that are close to cut-point lines?
- How far (in terms of scale scores) must these groups move to reach that cut-score? How far to reach the Proficient line?
- Which groups show the lowest scale-scores?
- What implication does this have for curriculum and instruction?
- How might a school begin to prioritize instructional services to address student needs?
- Are some students groups at your school omitted from the chart because they number fewer than 10?


SPRING 2004
KENTUCKY PERFORMANCE REPORT
MEAN SCALE SCORE/STANDARD DEVIATION
Reading
School: Any High School
District: Any District
Code: 999888
Grade: 10
775
725
675
625
575
525
475
425
375
325
All Students
Female
Male
White (Non-Hispanic)
African-American
Hispanic
Asian
Other
Title 1
Migrant
Identified LEP
Excluded School Services
Gifted/Talented
Free/Reduced Lunch Approved
Free/Reduced Lunch Not Approved
Voc./3 Credits
Voc./Enrolled
No Disability
Disability
Disab. (Acc)
Disab. (No Acc)
The mean scale scores are represented by a diamond with the actual printed score next to the diamond. One standard deviation is represented by the line extending on either side of the diamond. Approximately 68% of the distribution lies within one standard deviation of the mean. The three dotted lines, from bottom to top, reflect the cut score between novice/apprentice, apprentice/proficient, and proficient/distinguished.
Run Date: 08/11/2004
Page: 14


SPRING 2004
KENTUCKY PERFORMANCE REPORT
School: Any High School
District: Any District
Code: 999888
Grade: 10
Scale scores are represented on the vertical axis.
The top-most horizontal dotted line represents the cut score between the Proficient and Distinguished performance categories.
'I' band around mean scale score marks one standard deviation above and one below the mean.
Point in center of 'I' represents the group mean scale score.
No graph displayed where group size is fewer than 10.
The lowest of the 3 horizontal, doted lines represents the cut score between Novice and Apprentice performance categories.
Groups are listed on horizontal axis, one graph for each group.

Cluster of Eight (8) Content Domain Reports

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- Student Questionnaire
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- Disaggregation Index Trends
- Mean Scale Score/Standard Deviation
- ***Scale Score Data Disaggregation***

Scale Score Data Disaggregation

On the eigth and last page of the "cluster" of reports for each content area, scale score comparisons are provided for a number of important student groups. A standard error accompanies each scale score. In addition, differences between the scale scores for certain student groups (e.g., male vs. female, White vs. African-American) are calculated and a test of statistical significance is provided for each comparison. Examples of the Scale Score Data Disaggregation pages are presented below. These pages of the KPR provide important comparisons between the scale scores of the same student groups reported elsewhere in the KPR.

Mean scale scores for each assessed content area are provided by gender, ethnicity, Title I programs, migrant programs, students with limited English proficiency, Extended School Service programs, gifted and talented programs, students approved for free or reduced price lunch, students not approved for free or reduced price lunch, vocational education (high school only), students without disabilities, students with disabilities receiving accommodations, and students with disabilities not receiving accommodations.

Mean content area indices are also reported for each student group (the same student groups for which mean scale scores are calculated). Index means are rounded to four decimal places and can be interpreted the same way as content area indices provided on previous pages of the KPR. That is, the student group index means are on the 0 to 140 Academic Index scale. While caution should always be used when interpreting data based upon small numbers of students, the student subgroup content area indices can give an indication of where students groups are scoring relative to the state goal of 100.

Accompanying each scale-score mean on these data disaggregation pages is a measure of standard error. Standard error values are given in parentheses ( ) next to each mean scale score. These standard error values represent the standard error of the mean for the school and are calculated as:

$$SE_{MEAN} = \frac{\sigma}{\sqrt{N}} \quad (1)$$

Where:

SE_{MEAN} is the standard error of the school mean,
σ is the standard deviation associated with the scale-score mean, and
N is the number of students who took the content area test for a particular grade.

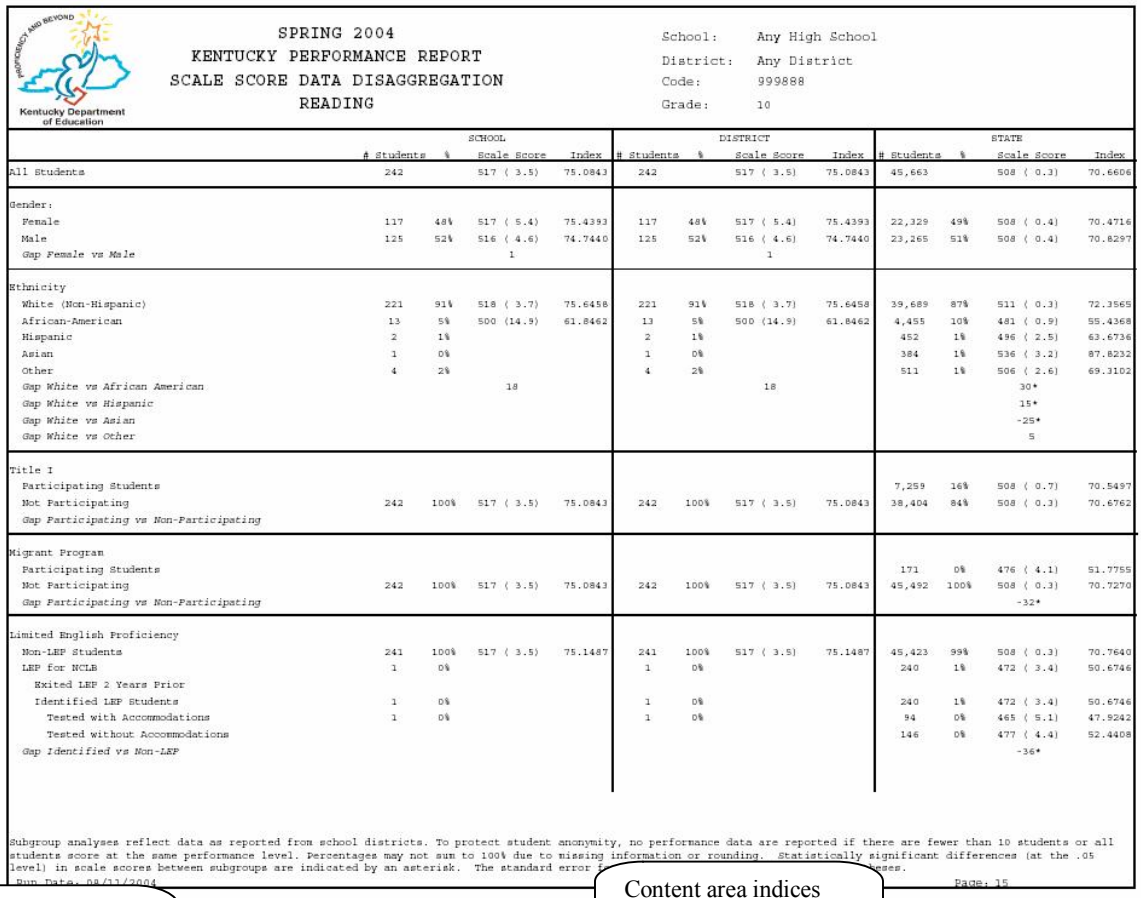
The standard errors (SE) presented on this report are important because they remind us that measurement error should be taken into account when interpreting test scores. For example, if the scale score mean for males for reading is 515 and the SE equals 5.8, we would expect the mean for this group of students (i.e., males) to fall between 509.2 (i.e., 515 - 5.8 = 509.2) and 520.8 (i.e., 515 + 5.8 = 520.8) 68% percent of the time[4].

In addition to scale score means and standard errors, the *difference* or Gap between the scale score means for the following student groups are provided:

Gap between:

- ✓ Female vs. Male
- ✓ White vs. African American
- ✓ White vs. Hispanic
- ✓ White vs. Asian
- ✓ White vs. Other
- ✓ Title I: Participating vs. Non- Participating
- ✓ Migrant Program: Participating vs. Non- Participating
- ✓ Limited English Proficiency: LEP vs. Non- LEP
- ✓ Extended School Services: Participating vs. Non-Participating
- ✓ Gifted and Talented Program: Participating vs. Non-Participating
- ✓ Free and Reduced Lunch Program: Participating vs. Non-Participating
- ✓ Vocational/ Technical Education: 3 Credits vs. Non-Voc/ Tech.
- ✓ Vocational/Technical Education: Not Concentrating vs. Non-Voc/ Tech.
- ✓ Disability Status: With vs. Without.

[4] Recall that 68% of a normal distribution falls within plus or minus one standard deviation of the mean. The SE represents an estimate of the standard deviation for the population of students on which the sample mean was calculated.



SPRING 2004
KENTUCKY PERFORMANCE REPORT
SCALE SCORE DATA DISAGGREGATION
READING

School: Any High School
District: Any District
Code: 999888
Grade: 10

	SCHOOL				DISTRICT				STATE			
	# Students	%	Scale Score	Index	# Students	%	Scale Score	Index	# Students	%	Scale Score	Index
All Students	242		517 (3.5)	75.0843	242		517 (3.5)	75.0843	45,663		508 (0.3)	70.6606
Gender:												
Female	117	48%	517 (5.4)	75.4393	117	48%	517 (5.4)	75.4393	22,329	49%	508 (0.4)	70.4716
Male	125	52%	516 (4.6)	74.7440	125	52%	516 (4.6)	74.7440	23,265	51%	508 (0.4)	70.8297
Gap Female vs Male			1				1					
Ethnicity												
White (Non-Hispanic)	221	91%	518 (3.7)	75.6458	221	91%	518 (3.7)	75.6458	39,689	87%	511 (0.3)	72.3565
African-American	13	5%	500 (14.9)	61.8462	13	5%	500 (14.9)	61.8462	4,455	10%	481 (0.9)	55.4368
Hispanic	2	1%			2	1%			452	1%	496 (2.5)	63.6736
Asian	1	0%			1	0%			384	1%	536 (3.2)	87.8232
Other	4	2%			4	2%			511	1%	506 (2.6)	69.3102
Gap White vs African American			18				18				30*	
Gap White vs Hispanic											15*	
Gap White vs Asian											-25*	
Gap White vs Other											5	
Title I												
Participating Students									7,259	16%	508 (0.7)	70.5497
Not Participating	242	100%	517 (3.5)	75.0843	242	100%	517 (3.5)	75.0843	38,404	84%	508 (0.3)	70.6762
Gap Participating vs Non-Participating												
Migrant Program												
Participating Students									171	0%	476 (4.1)	51.7755
Not Participating	242	100%	517 (3.5)	75.0843	242	100%	517 (3.5)	75.0843	45,492	100%	508 (0.3)	70.7270
Gap Participating vs Non-Participating											-32*	
Limited English Proficiency												
Non-LEP Students	241	100%	517 (3.5)	75.1487	241	100%	517 (3.5)	75.1487	45,423	99%	508 (0.3)	70.7640
LEP for NCLB	1	0%			1	0%			240	1%	472 (3.4)	50.6746
Exited LEP 2 Years Prior												
Identified LEP Students	1	0%			1	0%			240	1%	472 (3.4)	50.6746
Tested with Accommodations	1	0%			1	0%			94	0%	465 (5.1)	47.9242
Tested without Accommodations									146	0%	477 (4.4)	52.4408
Gap Identified vs Non-LEP											-36*	

Subgroup analyses reflect data as reported from school districts. To protect student anonymity, no performance data are reported if there are fewer than 10 students or all students score at the same performance level. Percentages may not sum to 100% due to missing information or rounding. Statistically significant differences (at the .05 level) in scale scores between subgroups are indicated by an asterisk. The standard error f… …heses.

Run Date: 08/11/2004 Page: 15

This is the second of two pages of disaggregated results for subgroups.

Content area indices are reported for each student group.

SPRING 2004
KENTUCKY PERFORMANCE REPORT
…CALE SCORE DATA DISAGGREGATION
READING

…999888
…Grade: 10

	SCHOOL				DISTRICT				STATE			
	# Students	%	Scale Score	Index	# Students	%	Scale Score	Index	# Students	%	Scale Score	Index
Extended School Services												
Participating Students	51	21%	514 (6.8)	71.1760	51	21%	514 (6.8)	71.1760	5,911	13%	502 (0.7)	66.6228
Not Participating	191	79%	518 (4.1)	76.1163	191	79%	518 (4.1)	76.1163	39,752	87%	509 (0.3)	71.2521
Gap Participating vs Non-Participating			-4				-4				-7*	
Gifted and Talented Program												
Participating Students	42	17%	571 (7.0)	107.1340	42	17%	571 (7.0)	107.1340	7,076	15%	558 (0.6)	101.0628
Not Participating	200	83%	505 (3.5)	68.3450	200	83%	505 (3.5)	68.3450	38,587	85%	499 (0.3)	65.0671
Gap Participating vs Non-Participating			66*				66*				59*	
Free and Reduced Lunch Program												
Approved for Free/Reduced Priced Meals	61	25%	495 (5.6)	60.6330	61	25%	495 (5.6)	60.6330	16,194	35%	486 (0.4)	57.6160
Not Approved (includes not coded)	181	75%	524 (4.2)	79.9301	181	75%	524 (4.2)	79.9301	29,469	65%	520 (0.3)	77.8209
Gap Approved vs Not Approved			-29*				-29*				-34*	
Vocational/Technical Education												
Plans to/completed 3 credits in career area	110	45%	505 (4.6)	68.0458	110	45%	505 (4.6)	68.0458	17,059	37%	507 (0.4)	69.4860
Enrolled, student not concentrating	58	24%	526 (6.5)	78.5802	58	24%	526 (6.5)	78.5802	11,199	25%	507 (0.5)	70.2385
Not Vocational/Technical Education	74	31%	528 (7.5)	82.7931	74	31%	528 (7.5)	82.7931	17,405	38%	509 (0.5)	72.0567
Gap Non-Voc/Tech vs 3 Credits			23*				23*				2*	
Gap Non-Voc/Tech vs Not Concentrating			2				2				2*	
Disability Status												
Students without Disabilities (includes not coded)	223	92%	524 (3.4)	78.8472	223	92%	524 (3.4)	78.8472	40,794	89%	515 (0.3)	74.5320
Students with Disabilities	19	8%	438 (7.5)	30.8940	19	8%	438 (7.5)	30.8940	4,869	11%	441 (0.8)	38.0721
Tested with Accommodations	11	5%	446 (10.8)	35.4510	11	5%	446 (10.8)	35.4510	3,296	7%	436 (0.9)	37.4876
Tested without Accommodations	8	3%			8	3%			1,573	3%	451 (1.4)	39.3036
Gap With vs Without			-86*				-86*				-74*	
Alternate Portfolio									360	1%		
Exemptions (On-Demand)												
Medical									71			
Other					1				184			

Number of Alternate Portfolios and exemptions to on-demand testing are presented at the end of the report.

Subgroup analyses reflect data as reported fr… …nonymity, no performance data are reported if there are fewer than 10 students or all students score at the same performance level. Percentages may not sum to 100% due to missing information or rounding. Statistically significant differences (at the .05 level) in scale scores between subgroups are indicated by an asterisk. The standard error for each scale score is reported in parentheses.

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The Gap between the scale scores for the above student groups are reported below the mean scale-score values. For example, if the mean scale scores for females and males were 507 and 515, respectively, the Gap reported would be –8 (i.e., 507 – 515 = –8). The values reported for the Gap also include a test for statistical significance. The following formula for the standard error of the difference between uncorrelated means was used[5]:

$$SEM_{(DIF)} = \sqrt{SE_1^2 + SE_2^2} \qquad (2)$$

Where:

$SEM_{(DIF)}$ is the standard error of the difference between two mean scores,
SE_1 is the standard error of the school mean for one student group (e.g., females), and
SE_2 is the standard error of the school mean for another student group (e.g., males).

Each value for the SEM produced by formula (2) (note that these values are not included on the report) was then multiplied by 1.96, the Z-score used to give a two-tailed test of statistical significance at the .05 level of significance. Gap values that are statistically significant beyond the .05 level are "flagged" by an asterisk (*). These flagged values, and thus the difference between the two student groups, represents the starting point for further investigation of these differences. For example, the data disaggregation provided on the KPR can be used to further study the percentage of Novice, Apprentice, Proficient and Distinguished students for each student group.

If there are no Gaps that are "flagged" by an asterisk, a general rule of thumb is to focus on Gaps or differences greater than or equal to 10 scale score points. In general, during the Standard Setting process conducted in 2001, Kentucky teachers discovered that moving a cut-point 10 or more scale score units had possible implications for the grade level, content area Descriptions of Student Performance, and thus our expectations of students. It should be noted that if all Gap values on these pages of the KPR were less than 10, the next strategy would be to look at Gap values relative to each other. For example, if the highest Gap values obtained for your school were around 7 or 8, then these student groups should represent the starting point for further investigation of differences. Of course, the state goal is for no, or zero gap between the

[5] While it probably would have been more appropriate to use the formula for the standard error of the difference between correlated means, the more conservative formula for the difference between uncorrelated means was used. This was done in part because the test for statistical significance used in the KPR did not take into account multiple comparisons or family wise error rate.

performances of all student groups. As such, the state goal is that there be no gap in performance at all.

Two cautionary notes should be kept in mind when reviewing disaggregation data for schools:

1) The accuracy of the disaggregated data is dependent on the accuracy with which schools filled in this information on the Student Test Booklets;
2) If fewer than ten students were reported in a school or district for a category, or more than ten students are scored in a category, but all these students scored at the same performance level (e.g., all were Apprentice), no disaggregated data were provided to ensure the protection of the privacy of individual students.

With these cautions in mind, data disaggregation information can be helpful to schools and districts in evaluating student performance in relation to special educational programs, e.g., Title I, Extended School Services (ESS). This information can also be used in consolidated planning to address issues relevant to equity across diverse student groups.

The Title I disaggregation has a few characteristics unique to the Title I program, which need to be noted. If a school participates in a school-wide Title I program, the disaggregation of student performance is for all students in the school. If a school participates in a Title I Targeted Assistance program, only the students participating in this program are part of the disaggregation data (as indicated on the Student Test Booklet by school staff).

Some important questions school personnel may want to ask include:

- What student group comparisons show statistically significant gaps? What size are the statistically significant gaps in scale-score points?
- What student group comparisons show large, if non-significant gaps? What size are the gaps in scale-score points at the school, district, and state levels?
- In which content domains are your school's gaps (especially the statistically significant gaps) larger or smaller than those at the district, or state levels?

Remember: Don't compare scale-score gaps across content domains. Keep comparisons within domains.

Explanation of Reports

KPR

- Cover Page & Intro.
- Accountability Cycle 2004
- Disaggregation Index Trends
- Content Area Index Trends
- Academic Index Comparisons
- Cluster of Eight (8) Content Domain Reports
- ***NRT***
- NRT Disaggregation

Individual

- Individual Student
- Student Listing
- Item Level

National Norm-Referenced Test (NRT)

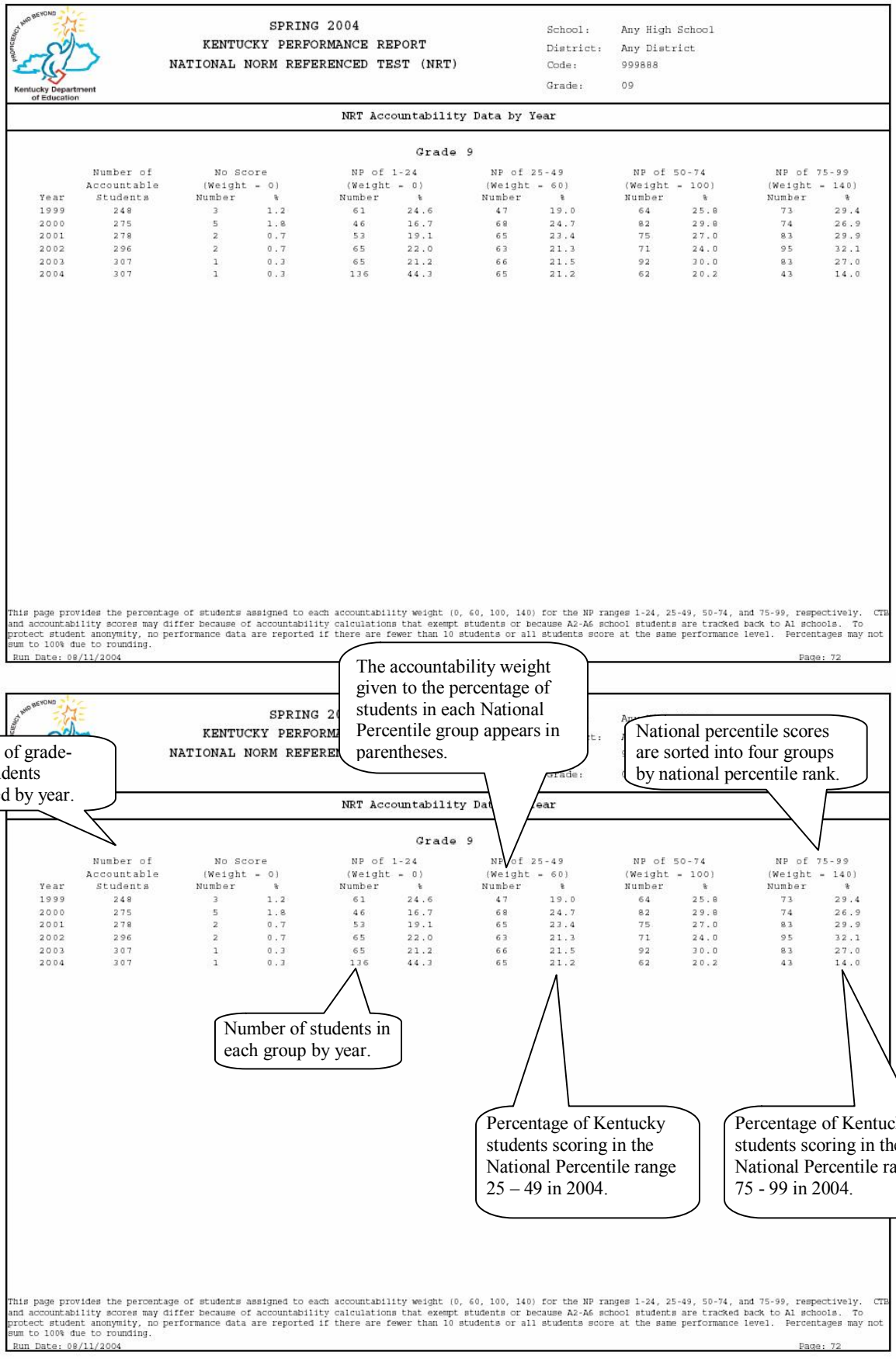
This page follows all the KCCT content area reports and is the first of two pages providing results for the National Norm-Referenced Test or the CTBS/5 Survey. The report provides data for the NRT component of your school's accountability classification. More specifically, this page of the KPR gives the percentage of students assigned to each accountability weight (i.e., 0, 60, 100, 140) for the National Percentile (NP) ranges 1-24th, 25-49th, 50-74th, and 75-99th, respectively. State mandated components include the tests for Reading, Language, and Mathematics. The NP reported is for the Total Battery Composite based on these same three tests. An example of the report is provided on the following page.

The results reported on the National Norm-Referenced Test page of the KPR reflect only those students for whom a school is held accountable. Percentages of students scoring in each of Kentucky's four National Percentile range categories (specified above) *do not* actually reflect the percentage of students scoring in quartiles. Rather, the values reflect the percentages of students scoring within the NP range categories as defined by the Kentucky Board of Education. (Note that these range categories are labeled Q1, Q2, Q3, and Q4 on the NRT Data Disaggregation page; however, as just explained, 'Q' is not equivalent to 'Quartile' here.)

The NRT component of the state's accountability system is based upon the CTBS/5 Survey (state-required components) Total Battery National Percentile. The "index" for the NRT is an average of student scores assigned or weighted as follows:

Weight	National Percentile Range
0	1 - 24
60	25 - 49
100	50 - 74
140	75 - 99

The above assignment of weights or scores places the NRT on the same 0 to 140 scale as the KCCT content areas. The mean index score (i.e., the score based on the above weighting) for students is weighted 5% in accountability. The number and percentage of students receiving each score is presented on the National Norm-Referenced Test page for all years from 1999 - 2004.



SPRING 2004
KENTUCKY PERFORMANCE REPORT
NATIONAL NORM REFERENCED TEST (NRT)

School: Any High School
District: Any District
Code: 999888
Grade: 09

NRT Accountability Data by Year

Grade 9

Year	Number of Accountable Students	No Score (Weight = 0) Number	%	NP of 1-24 (Weight = 0) Number	%	NP of 25-49 (Weight = 60) Number	%	NP of 50-74 (Weight = 100) Number	%	NP of 75-99 (Weight = 140) Number	%
1999	248	3	1.2	61	24.6	47	19.0	64	25.8	73	29.4
2000	275	5	1.8	46	16.7	68	24.7	82	29.8	74	26.9
2001	278	2	0.7	53	19.1	65	23.4	75	27.0	83	29.9
2002	296	2	0.7	65	22.0	63	21.3	71	24.0	95	32.1
2003	307	1	0.3	65	21.2	66	21.5	92	30.0	83	27.0
2004	307	1	0.3	136	44.3	65	21.2	62	20.2	43	14.0

This page provides the percentage of students assigned to each accountability weight (0, 60, 100, 140) for the NP ranges 1-24, 25-49, 50-74, and 75-99, respectively. CTB and accountability scores may differ because of accountability calculations that exempt students or because A2-A6 school students are tracked back to A1 schools. To protect student anonymity, no performance data are reported if there are fewer than 10 students or all students score at the same performance level. Percentages may not sum to 100% due to rounding.

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Explanation of Reports

KPR

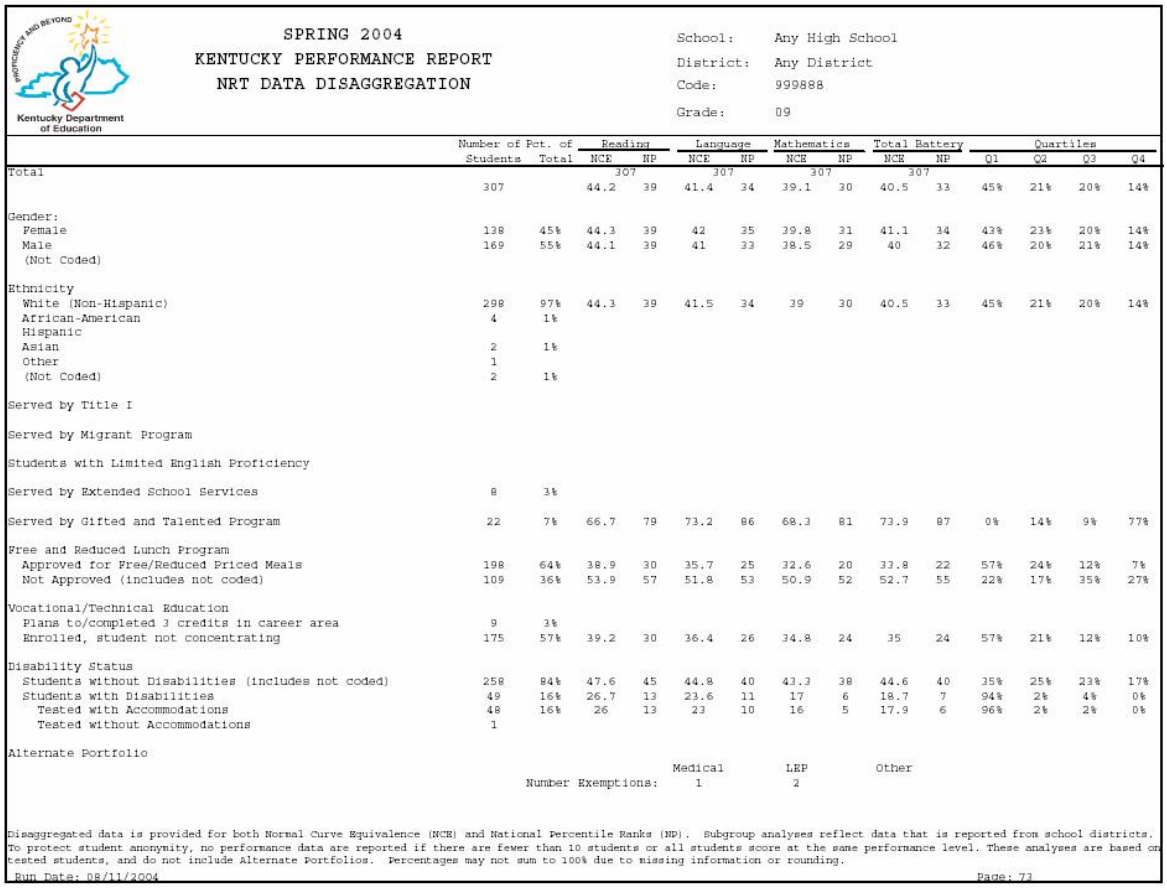
- Cover Page & Intro.
- Accountability Cycle 2004
- Disaggregation Index Trends
- Content Area Index Trends
- Academic Index Comparisons
- Cluster of Eight (8) Content Domain Reports
- NRT
- ***NRT Disaggregation***

Individual

- Individual Student
- Student Listing
- Item Level

NRT Data Disaggregation

For the state mandated components of the CTBS/5 Survey, important comparisons are provided for the same student groups given on other pages of the KPR. Note that the percentages on this page may not match values reported by CTB McGraw-Hill in the spring for the following reasons: the percentiles included in the National Percentile range categories are slightly different; KPR results exclude students exempted from accountability; and KPR results may include students that were tracked back to your school from a non-A1 school. CTB does not have access to this information and therefore cannot take it into consideration when preparing its reports.



SPRING 2004
KENTUCKY PERFORMANCE REPORT
NRT DATA DISAGGREGATION

Kentucky Department of Education

School: Any High School
District: Any District
Code: 999888
Grade: 09

	Number of Students	Pct. of Total	Reading NCE	Reading NP	Language NCE	Language NP	Mathematics NCE	Mathematics NP	Total Battery NCE	Total Battery NP	Quartiles Q1	Q2	Q3	Q4
Total			307		307		307		307					
	307		44.2	39	41.4	34	39.1	30	40.5	33	45%	21%	20%	14%
Gender:														
Female	138	45%	44.3	39	42	35	39.8	31	41.1	34	43%	23%	20%	14%
Male	169	55%	44.1	39	41	33	38.5	29	40	32	46%	20%	21%	14%
(Not Coded)														
Ethnicity														
White (Non-Hispanic)	298	97%	44.3	39	41.5	34	39	30	40.5	33	45%	21%	20%	14%
African-American	4	1%												
Hispanic														
Asian	2	1%												
Other	1													
(Not Coded)	2	1%												
Served by Title I														
Served by Migrant Program														
Students with Limited English Proficiency														
Served by Extended School Services	8	3%												
Served by Gifted and Talented Program	22	7%	66.7	79	73.2	86	68.3	81	73.9	87	0%	14%	9%	77%
Free and Reduced Lunch Program														
Approved for Free/Reduced Priced Meals	198	64%	38.9	30	35.7	25	32.6	20	33.8	22	57%	24%	12%	7%
Not Approved (includes not coded)	109	36%	53.9	57	51.8	53	50.9	52	52.7	55	22%	17%	35%	27%
Vocational/Technical Education														
Plans to/completed 3 credits in career area	9	3%												
Enrolled, student not concentrating	175	57%	39.2	30	36.4	26	34.8	24	35	24	57%	21%	12%	10%
Disability Status														
Students without Disabilities (includes not coded)	258	84%	47.6	45	44.8	40	43.3	38	44.6	40	35%	25%	23%	17%
Students with Disabilities	49	16%	26.7	13	23.6	11	17	6	18.7	7	94%	2%	4%	0%
Tested with Accommodations	48	16%	26	13	23	10	16	5	17.9	6	96%	2%	2%	0%
Tested without Accommodations	1													
Alternate Portfolio														

Number Exemptions:	Medical	LEP	Other
	1	2	

Disaggregated data is provided for both Normal Curve Equivalence (NCE) and National Percentile Ranks (NP). Subgroup analyses reflect data that is reported from school districts. To protect student anonymity, no performance data are reported if there are fewer than 10 students or all students score at the same performance level. These analyses are based on tested students, and do not include Alternate Portfolios. Percentages may not sum to 100% due to missing information or rounding.

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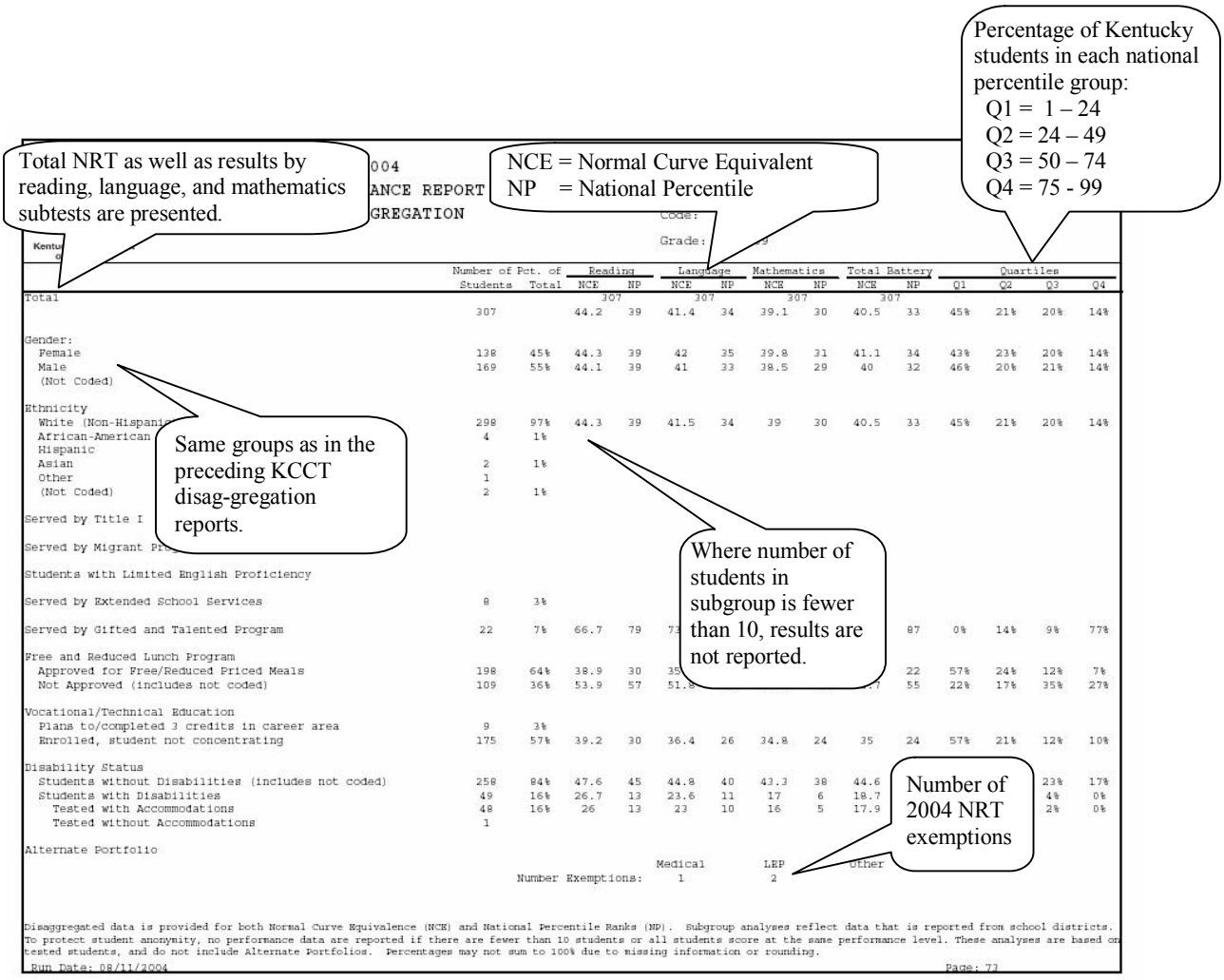


An example of the NRT Data Disaggregation page is provided above. As previously noted, the state mandated components include the tests for Reading, Language and Mathematics. The Total Battery Composite based on these same three tests is also reported. Note that the results reported on this page of the KPR reflect the performance of only those students for whom a school is held accountable. In addition to the number of students tested and the percentage of total students tested, values for Normal Curve Equivalents (NCE) and National Percentiles (NP) are reported. NCEs and NPs are reported for all four scores (i.e., Reading, Language, Mathematics and Total Battery Composite). The percentage of students scoring in each of the following accountability NP ranges is also provided:

Label	National Percentile Range
Q1	1 - 24
Q2	25 - 49
Q3	50 - 74
Q4	75 - 99

As indicated in the preceding section, 'Q' in the National Percentile Range labels seen on the KPR NRT pages is not technically equivalent to 'quartile.'

One possible use of this NRT Data Disaggregation report is to study the percentage of students scoring in Q1 through Q4 for each

student group. In this way, the relative "contribution" of each student group to the NRT index can be determined, thus providing guidance with respect to instructional resources and/or priorities.

Explanation of Reports

KPR
- Cover Page & Intro.
- Accountability Cycle 2004
- Disaggregation Index Trends
- Content Area Index Trends
- Academic Index Comparisons
- Cluster of Eight (8) Content Domain Reports
- NRT
- NRT Disaggregation

Individual
- ***Individual Student***
- Student Listing
- Item Level

Individual Student Report

The Individual Student Report (see the example on the following page) informs students and parents about individual student performance on the Kentucky Core Content Tests. Student answers to open-response questions were evaluated on a scale of 0-4, with higher scores associated with more complete and accurate responses. Multiple-choice questions were given a raw score value of 1 for a correct answer and 0 for an incorrect answer. The main features of the Individual Student Report are the student's performance level (Novice non-performance, Novice medium, Novice high, Apprentice low, Apprentice medium, Apprentice high, Proficient, Distinguished), and Kentucky percentile ranking in each content area.

The performance levels and percentiles are based on students' responses to both the open-response and multiple-choice questions. If a student is not tested, no performance level or percentile information is printed on the student report. The Description of Your Results box will be marked "Non-tested" for each content area.

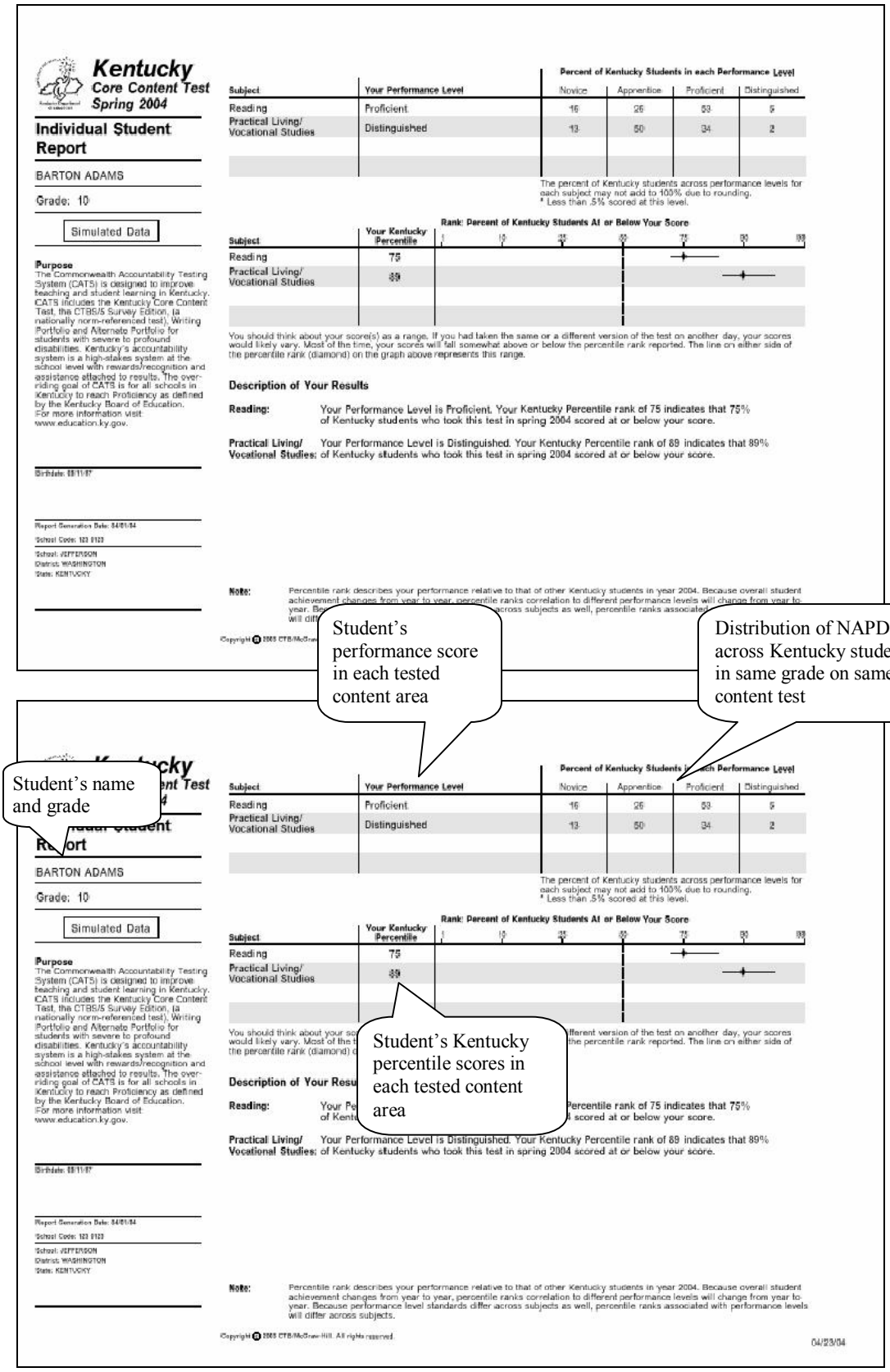
The Kentucky percentile is not the same as a *national percentile*.

Test publishers produce national percentiles by testing a large number of students who, when you put them all together, look a lot like the U.S. as a whole. The publisher's sample is 'nationally representative.'

The KCCT is not administered outside of Kentucky, since it is designed to assess student performance on Kentucky Core Content.

For students taking the same content area test during the 2003-2004 school year, the percentile rank shows where each student ranked in relation to other students throughout Kentucky. Keep in mind that the KCCT percentile rank is *not* referenced to a distribution established in a norming year. Therefore, between-year comparisons of percentile ranks cannot be made on KCCT results. For example, one cannot compare Jim's 2003 science percentile rank to Jane Ellen's 2004 science percentile rank. More important, percentile ranks are *not* related to Kentucky Performance Standards.

Emphasis needs to be placed on the performance level achieved by each student. Increases in performance level determine improvement in the accountability index and determine how close a school is to bringing all students to the state goal of Proficient. Performance levels, and a clear explanation of the standards required of students, carry the most weight in CATS because they reflect the learning that is most valued in Kentucky.


Kentucky
Core Content Test
Spring 2004
Individual Student Report
BARTON ADAMS
Grade: 10
Simulated Data
Purpose
The Commonwealth Accountability Testing System (CATS) is designed to improve teaching and student learning in Kentucky. CATS includes the Kentucky Core Content Test, the CTBS/5 Survey Edition, (a nationally norm-referenced test), Writing Portfolio and Alternate Portfolio for students with severe to profound disabilities. Kentucky's accountability system is a high-stakes system at the school level with rewards/recognition and assistance attached to results. The over-riding goal of CATS is for all schools in Kentucky to reach Proficiency as defined by the Kentucky Board of Education. For more information visit www.education.ky.gov.
Birthdate: 08/11/97
Report Generation Date: 04/01/04
School Code: 123 0123
School: JEFFERSON
District: WASHINGTON
State: KENTUCKY
Percent of Kentucky Students in each Performance Level
Subject
Your Performance Level
Novice
Apprentice
Proficient
Distinguished
Reading
Proficient
16
26
53
5
Practical Living/ Vocational Studies
Distinguished
13
50
34
2
The percent of Kentucky students across performance levels for each subject may not add to 100% due to rounding.
* Less than .5% scored at this level.
Rank: Percent of Kentucky Students At or Below Your Score
Your Kentucky Percentile
Reading
75
Practical Living/ Vocational Studies
89
You should think about your score(s) as a range. If you had taken the same or a different version of the test on another day, your scores would likely vary. Most of the time, your scores will fall somewhat above or below the percentile rank reported. The line on either side of the percentile rank (diamond) on the graph above represents this range.
Description of Your Results
Reading: Your Performance Level is Proficient. Your Kentucky Percentile rank of 75 indicates that 75% of Kentucky students who took this test in spring 2004 scored at or below your score.
Practical Living/ Vocational Studies: Your Performance Level is Distinguished. Your Kentucky Percentile rank of 89 indicates that 89% of Kentucky students who took this test in spring 2004 scored at or below your score.
Note: Percentile rank describes your performance relative to that of other Kentucky students in year 2004. Because overall student achievement changes from year to year, percentile ranks correlation to different performance levels will change from year to year. Because performance level standards differ across subjects as well, percentile ranks associated with performance levels will differ across subjects.
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04/23/04
Student's performance score in each tested content area
Distribution of NAPD across Kentucky students in same grade on same content test
Student's name and grade
Student's Kentucky percentile scores in each tested content area

It is important that discussions of the KCCT reports with parents include information explaining the performance levels. As previously noted, specific **Performance Standards Descriptions** by grade level and content area can be found on KDE's website at http://www.education.ky.gov. In addition to this resource, a brief document, *CATS 2004 Information Sheet: Basic Information About Your Score Reports,* is available at the same website address. This document includes a glossary of basic terms that may be useful when communicating with parents and other stakeholders.

To provide students, parents and schools with a better understanding of where a student stands in the Novice and Apprentice performance levels, the text in the Description of Your Results box (just beneath the Score Percentile box) identifies a student's performance as being either Novice non-performance, Novice medium, Novice high or Apprentice low, Apprentice medium, Apprentice high. These ranges (from non-performance/low to high) were determined by splitting the range of scores, at each of the Novice and Apprentice performance levels, approximately into thirds. This is *not* done at the Proficient and Distinguished levels because these students have met the state goal of Proficient. The "non-performance" Novice rating is assigned to students who earn a scale score of 325 (the lowest scale score possible), which generally reflects less than chance performance on the test. As in previous years, two copies of each individual student report are provided for students in grades 4, 5, 7, 8, 10 and 11. One copy is to be sent to parents/guardians; the other copy is for school records. For grade 12 students, only single copies (for school records) of the individual student reports have been provided.

Explanation of Reports

KPR
- Cover Page & Intro.
- Accountability Cycle 2004
- Disaggregation Index Trends
- Content Area Index Trends
- Academic Index Comparisons
- Cluster of Eight (8) Content Domain Reports
- NRT
- NRT Disaggregation

Individual
- Individual Student
- ***Student Listing***
- Item Level

Student Listing

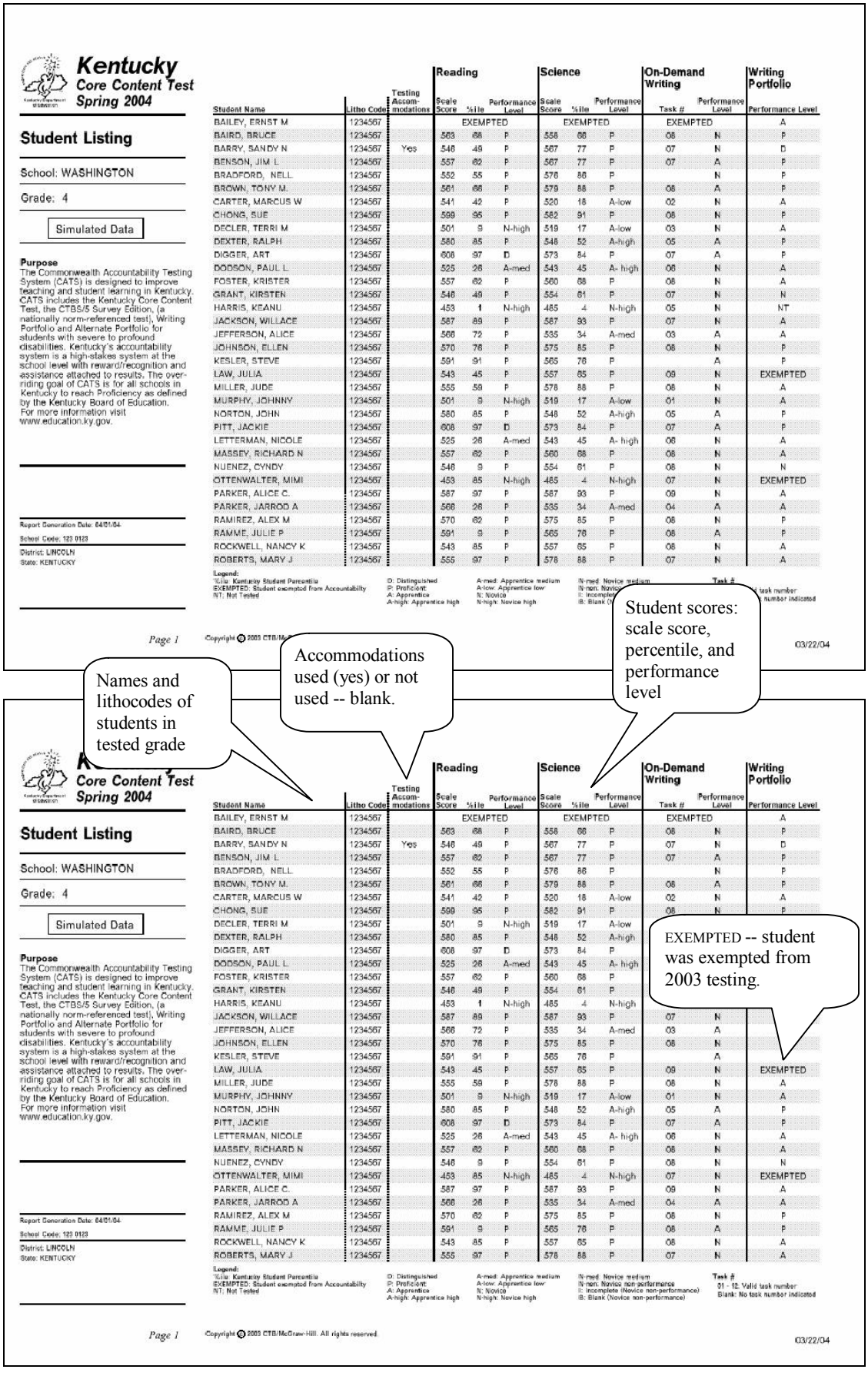
The Student Listing report (distributed in print) provides all the information in the Individual Student Report in a concise and convenient form. An example of the report is presented on the following page. For each student and tested content area (reading, mathematics, science, social studies, arts and humanities, and practical living/vocational studies), the report lists the student's name and lithocode number (the student identification number for the current year of the assessment system), an indicator of any testing accommodations used by the student (when such accommodations were indicated on the Student Test Booklet), as well as the student's scale score, percentile rank and performance level. Scores of students exempted from accountability are not reported. The word "EXEMPTED" is printed in place of scores for

these students. Performance levels are based on the student's responses to the entire test -- open-response *and* multiple-choice questions. The performance levels are abbreviated as follows:

- **D** indicates that the student scored at the Distinguished (highest) level.
- **P** indicates Proficient (the high level of achievement that is the state goal for all students to attain).
- **A-high** indicates high Apprentice.
- **A-med** indicates medium Apprentice.
- **A-low** indicates low Apprentice.
- **N-high** indicates high Novice.
- **N-med** indicates medium Novice.
- **N-non** indicates Non-performance.
- **I** indicates Incomplete (this is for portfolios only). The portfolio submitted by the student was not complete. For accountability purposes, Incomplete scores are treated as non-performance.
- **B** indicates Blank (this is for portfolios and the on-demand writing prompt only). The student did not make any response to the portfolio and/or to the on-demand writing prompt. For accountability purposes, Blank scores are treated as non-performance.
- **NT** indicates Not Tested. The student did not take the Kentucky Core Contest Test and/or Writing Portfolio.
- **NA** indicates Not Applicable.
- ***** (asterisk) indicates a school is not accountable for the student.

Cut points used to assign the four performance levels of Novice, Apprentice, Proficient and Distinguished to student work are derived from an underlying scale (see the section above on Kentucky's Accountability Index) that remains constant over time through equating. The determination of the cut points for non-performance, medium and high Novice is calculated by splitting the Novice interval of the scale into three approximately equal intervals. The same procedure was followed to obtain low, medium and high Apprentice performance levels.

In June 2001, the Kentucky Board of Education set new standards for the Commonwealth Accountability Testing System. The new cut points for determining performance levels do not vary from year to year. However, percentiles associated with the performance levels should shift reflecting student growth.



Kentucky
Core Content Test
Spring 2004

Student Listing

School: WASHINGTON

Grade: 4

Simulated Data

Purpose
The Commonwealth Accountability Testing System (CATS) is designed to improve teaching and student learning in Kentucky. CATS includes the Kentucky Core Content Test, the CTBS/5 Survey Edition, (a nationally norm-referenced test), Writing Portfolio and Alternate Portfolio for students with severe to profound disabilities. Kentucky's accountability system is a high-stakes system at the school level with reward/recognition and assistance attached to results. The over-riding goal of CATS is for all schools in Kentucky to reach Proficiency as defined by the Kentucky Board of Education. For more information visit www.education.ky.gov.

Report Generation Date: 04/01/04
School Code: 123 0123
District: LINCOLN
State: KENTUCKY

Student Name	Litho Code	Testing Accom-modations	Reading Scale Score	Reading %ile	Reading Performance Level	Science Scale Score	Science %ile	Science Performance Level	On-Demand Writing Task #	On-Demand Writing Performance Level	Writing Portfolio Performance Level
BAILEY, ERNST M	1234567		EXEMPTED			EXEMPTED			EXEMPTED		A
BAIRD, BRUCE	1234567		563	68	P	558	66	P	06	N	P
BARRY, SANDY N	1234567	Yes	546	49	P	567	77	P	07	N	D
BENSON, JIM L	1234567		557	62	P	567	77	P	07	A	P
BRADFORD, NELL	1234567		552	55	P	576	86	P		N	P
BROWN, TONY M.	1234567		561	66	P	579	88	P	06	A	P
CARTER, MARCUS W	1234567		541	42	P	520	18	A-low	02	N	A
CHONG, SUE	1234567		599	95	P	582	91	P	06	N	P
DECLER, TERRI M	1234567		501	9	N-high	519	17	A-low	03	N	A
DEXTER, RALPH	1234567		580	85	P	548	52	A-high	05	A	P
DIGGER, ART	1234567		608	97	D	573	84	P	07	A	P
DODSON, PAUL L	1234567		525	26	A-med	543	45	A- high	06	N	A
FOSTER, KRISTER	1234567		557	62	P	560	68	P	06	N	A
GRANT, KIRSTEN	1234567		546	49	P	554	61	P	07	N	N
HARRIS, KEANU	1234567		453	1	N-high	485	4	N-high	05	N	NT
JACKSON, WILLACE	1234567		587	89	P	567	93	P	07	N	A
JEFFERSON, ALICE	1234567		566	72	P	535	34	A-med	03	A	A
JOHNSON, ELLEN	1234567		570	76	P	575	85	P	06	N	P
KESLER, STEVE	1234567		591	91	P	565	76	P		A	P
LAW, JULIA	1234567		543	45	P	557	65	P	09	N	EXEMPTED
MILLER, JUDE	1234567		555	59	P	578	88	P	06	N	A
MURPHY, JOHNNY	1234567		501	9	N-high	519	17	A-low	01	N	A
NORTON, JOHN	1234567		580	85	P	548	52	A-high	05	A	P
PITT, JACKIE	1234567		608	97	D	573	84	P	07	A	P
LETTERMAN, NICOLE	1234567		525	26	A-med	543	45	A- high	06	N	A
MASSEY, RICHARD N	1234567		557	62	P	560	68	P	06	N	A
NUENEZ, CYNDY	1234567		546	9	P	554	61	P	06	N	N
OTTENWALTER, MIMI	1234567		453	85	N-high	485	4	N-high	07	N	EXEMPTED
PARKER, ALICE C.	1234567		587	97	P	567	93	P	09	N	A
PARKER, JARROD A	1234567		566	26	P	535	34	A-med	04	A	A
RAMIREZ, ALEX M	1234567		570	62	P	575	85	P	06	N	P
RAMME, JULIE P	1234567		591	9	P	565	76	P	06	A	P
ROCKWELL, NANCY K	1234567		543	85	P	557	65	P	06	N	A
ROBERTS, MARY J	1234567		555	97	P	578	88	P	07	N	A

Legend:
%ile: Kentucky Student Percentile
EXEMPTED: Student exempted from Accountability
NT: Not Tested
D: Distinguished
P: Proficient
A: Apprentice
A-high: Apprentice high
A-med: Apprentice medium
A-low: Apprentice low
N: Novice
N-high: Novice high
N-med: Novice medium
N-non: Novice non-performance
I: Incomplete (Novice non-performance)
B: Blank (Novice non-performance)
Task #
01 - 12: Valid task number
Blank: No task number indicated

Page 1

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Names and lithocodes of students in tested grade

Accommodations used (yes) or not used -- blank.

Student scores: scale score, percentile, and performance level

EXEMPTED -- student was exempted from 2003 testing.

Kentucky
Core Content Test
Spring 2004

Student Listing

School: WASHINGTON

Grade: 4

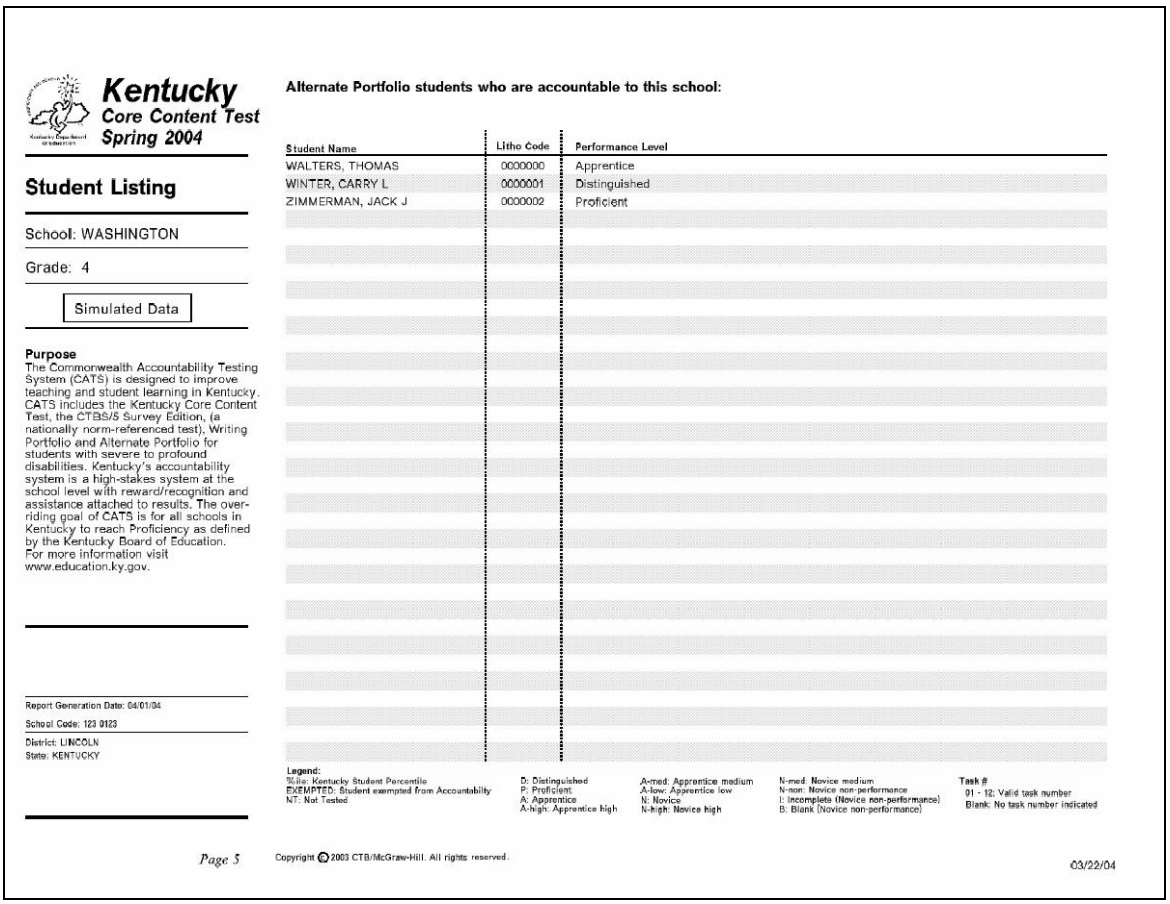
Simulated Data

Purpose
The Commonwealth Accountability Testing System (CATS) is designed to improve teaching and student learning in Kentucky. CATS includes the Kentucky Core Content Test, the CTBS/5 Survey Edition, (a nationally norm-referenced test), Writing Portfolio and Alternate Portfolio for students with severe to profound disabilities. Kentucky's accountability system is a high-stakes system at the school level with reward/recognition and assistance attached to results. The over-riding goal of CATS is for all schools in Kentucky to reach Proficiency as defined by the Kentucky Board of Education. For more information visit www.education.ky.gov.

Report Generation Date: 04/01/04
School Code: 123 0123
District: LINCOLN
State: KENTUCKY

In addition to the performance levels and percentile rankings, the Student Listing describes each student's performance in writing (Grades 4, 7 and 12). This includes a performance-level score for both the on-demand writing prompt and Writing Portfolio. Note that a task number is provided for on-demand and can be equated to a specific mode of writing via the look up table below (page 86).

Separate pages are given for (a) Alternate Portfolio students who are accountable to this school, (b) students tested at another school who are accountable to this school, and (c) students tested at this school who are accountable to another school. Images of these reports are provided on this page and the following page. As in previous years, two copies of the student listing are provided, one for schools and one for districts.



Kentucky
Core Content Test
Spring 2004

Student Listing

School: WASHINGTON

Grade: 4

Simulated Data

Purpose
The Commonwealth Accountability Testing System (CATS) is designed to improve teaching and student learning in Kentucky. CATS includes the Kentucky Core Content Test, the CTBS/5 Survey Edition, (a nationally norm-referenced test), Writing Portfolio and Alternate Portfolio for students with severe to profound disabilities. Kentucky's accountability system is a high-stakes system at the school level with reward/recognition and assistance attached to results. The over-riding goal of CATS is for all schools in Kentucky to reach Proficiency as defined by the Kentucky Board of Education. For more information visit www.education.ky.gov.

Report Generation Date: 04/01/04
School Code: 123 0123
District: LINCOLN
State: KENTUCKY

Alternate Portfolio students who are accountable to this school:

Student Name	Litho Code	Performance Level
WALTERS, THOMAS	0000000	Apprentice
WINTER, CARRY L	0000001	Distinguished
ZIMMERMAN, JACK J	0000002	Proficient

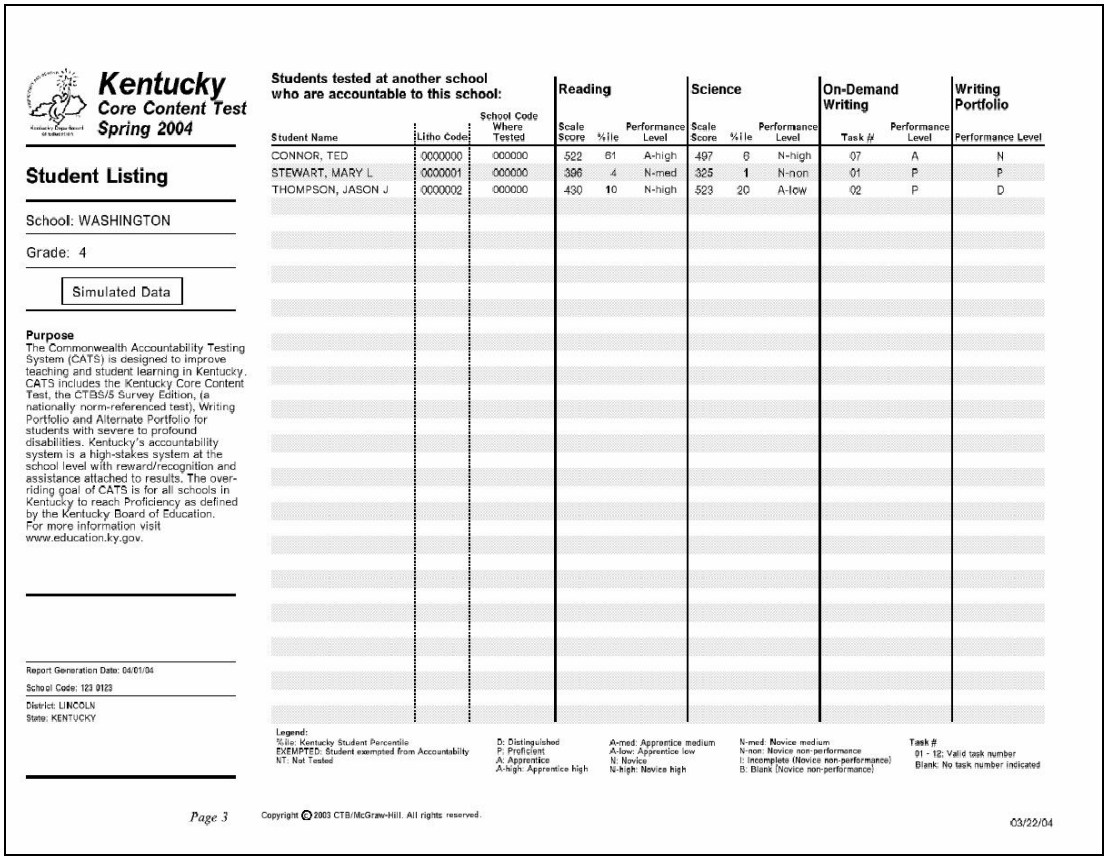
Legend:
%ile: Kentucky Student Percentile
EXEMPTED: Student exempted from Accountability
NT: Not Tested

D: Distinguished
P: Proficient
A: Apprentice
A-high: Apprentice high
A-med: Apprentice medium
A-low: Apprentice low
N: Novice
N-high: Novice high
N-med: Novice medium
N-non: Novice non-performance
I: Incomplete (Novice non-performance)
B: Blank (Novice non-performance)

Task #
01 - 12: Valid task number
Blank: No task number indicated

Page 5

03/22/04



Kentucky
Core Content Test
Spring 2004

Student Listing

School: WASHINGTON

Grade: 4

Simulated Data

Purpose
The Commonwealth Accountability Testing System (CATS) is designed to improve teaching and student learning in Kentucky. CATS includes the Kentucky Core Content Test, the CTBS/5 Survey Edition, (a nationally norm-referenced test), Writing Portfolio and Alternate Portfolio for students with severe to profound disabilities. Kentucky's accountability system is a high-stakes system at the school level with reward/recognition and assistance attached to results. The over-riding goal of CATS is for all schools in Kentucky to reach Proficiency as defined by the Kentucky Board of Education. For more information visit www.education.ky.gov.

Report Generation Date: 04/01/04
School Code: 123 0123
District: LINCOLN
State: KENTUCKY

Students tested at another school who are accountable to this school:

Student Name	Litho Code	School Code Where Tested	Reading Scale Score	Reading %ile	Reading Performance Level	Science Scale Score	Science %ile	Science Performance Level	On-Demand Writing Task #	On-Demand Writing Performance Level	Writing Portfolio Performance Level
CONNOR, TED	0000000	000000	522	61	A-high	497	6	N-high	07	A	N
STEWART, MARY L	0000001	000000	396	4	N-med	325	1	N-non	01	P	P
THOMPSON, JASON J	0000002	000000	430	10	N-high	523	20	A-low	02	P	D

Legend:
%ile: Kentucky Student Percentile
EXEMPTED: Student exempted from Accountability
NT: Not Tested

D: Distinguished
P: Proficient
A: Apprentice
A-high: Apprentice high

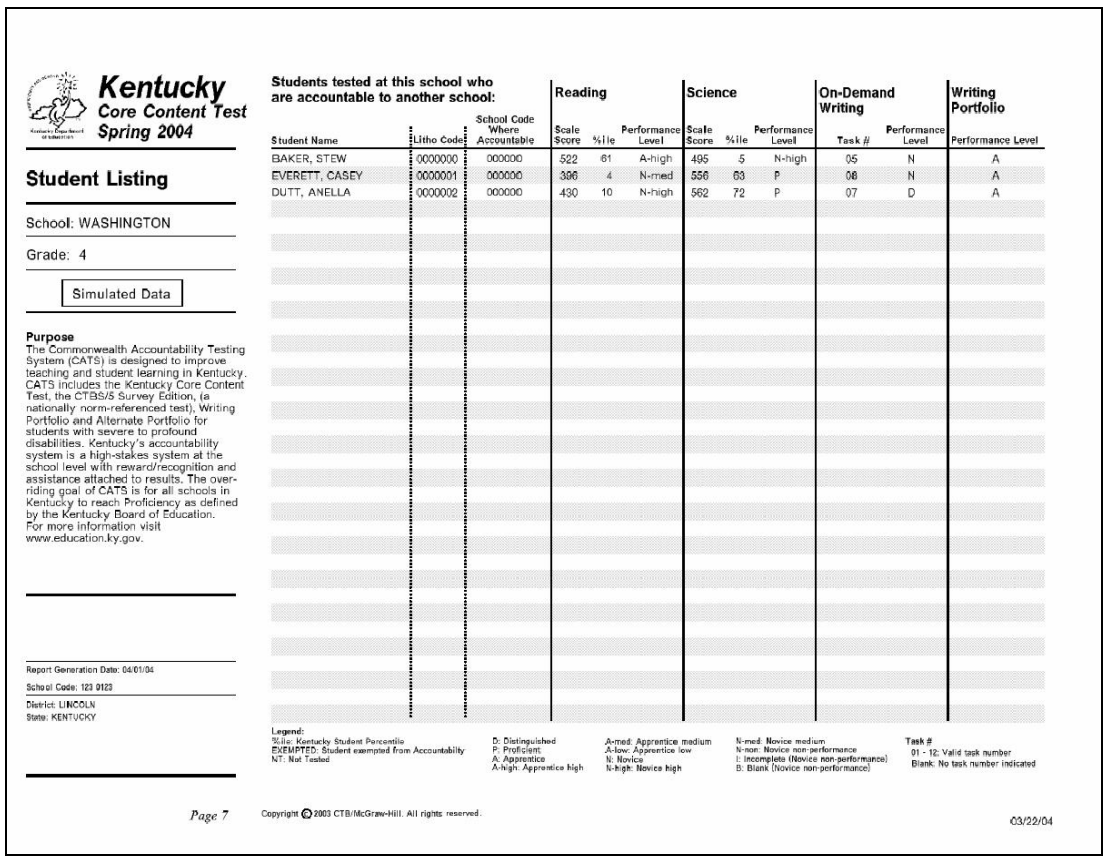
A-med: Apprentice medium
A-low: Apprentice low
N: Novice
N-high: Novice high

N-med: Novice medium
N-non: Novice non-performance
I: Incomplete (Novice non-performance)
B: Blank (Novice non-performance)

Task #
01 - 12: Valid task number
Blank: No task number indicated

Page 3

03/22/04



Kentucky
Core Content Test
Spring 2004

Student Listing

School: WASHINGTON

Grade: 4

Simulated Data

Purpose
The Commonwealth Accountability Testing System (CATS) is designed to improve teaching and student learning in Kentucky. CATS includes the Kentucky Core Content Test, the CTBS/5 Survey Edition, (a nationally norm-referenced test), Writing Portfolio and Alternate Portfolio for students with severe to profound disabilities. Kentucky's accountability system is a high-stakes system at the school level with reward/recognition and assistance attached to results. The over-riding goal of CATS is for all schools in Kentucky to reach Proficiency as defined by the Kentucky Board of Education. For more information visit www.education.ky.gov.

Report Generation Date: 04/01/04
School Code: 123 0123
District: LINCOLN
State: KENTUCKY

Students tested at this school who are accountable to another school:

Student Name	Litho Code	School Code Where Accountable	Reading Scale Score	Reading %ile	Reading Performance Level	Science Scale Score	Science %ile	Science Performance Level	On-Demand Writing Task #	On-Demand Writing Performance Level	Writing Portfolio Performance Level
BAKER, STEW	0000000	000000	522	61	A-high	495	5	N-high	05	N	A
EVERETT, CASEY	0000001	000000	396	4	N-med	556	63	P	08	N	A
DUTT, ANELLA	0000002	000000	430	10	N-high	562	72	P	07	D	A

Legend:
%ile: Kentucky Student Percentile
EXEMPTED: Student exempted from Accountability
NT: Not Tested

D: Distinguished
P: Proficient
A: Apprentice
A-high: Apprentice high

A-med: Apprentice medium
A-low: Apprentice low
N: Novice
N-high: Novice high

N-med: Novice medium
N-non: Novice non-performance
I: Incomplete (Novice non-performance)
B: Blank (Novice non-performance)

Task #
01 - 12: Valid task number
Blank: No task number indicated

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03/22/04

Correlation of Writing Task to Writing On-Demand Category for 2004 Assessment

Fourth Grade

FORM	TASK NUMBER	ON-DEMAND CATEGORY
1	1	Narrate an event for a purpose
1	2	Narrate an event for a purpose
2	3	Narrate an event for a purpose
2	4	Narrate an event for a purpose
3	5	Respond to text or graphic
3	6	Respond to text or graphic
4	7	Respond to text or graphic
4	8	Respond to text or graphic
5	9	Persuade
5	10	Persuade
6	11	Persuade
6	12	Persuade

Seventh Grade

FORM	TASK NUMBER	ON-DEMAND CATEGORY
1	1	Narrate an event for a purpose
1	2	Narrate an event for a purpose
2	3	Narrate an event for a purpose
2	4	Narrate an event for a purpose
3	5	Respond to text or graphic
3	6	Respond to text or graphic
4	7	Respond to text or graphic
4	8	Respond to text or graphic
5	9	Persuade
5	10	Persuade
6	11	Persuade
6	12	Persuade

Twelfth Grade

FORM	TASK NUMBER	ON-DEMAND CATEGORY
1	1	Narrate an event for a purpose
1	2	Narrate an event for a purpose
2	3	Narrate an event for a purpose
2	4	Narrate an event for a purpose
3	5	Persuade
3	6	Persuade
4	7	Persuade
4	8	Persuade
5	9	Respond to text or graphic
5	10	Respond to text or graphic
6	11	Respond to text or graphic
6	12	Respond to text or graphic

Explanation of Reports

KPR

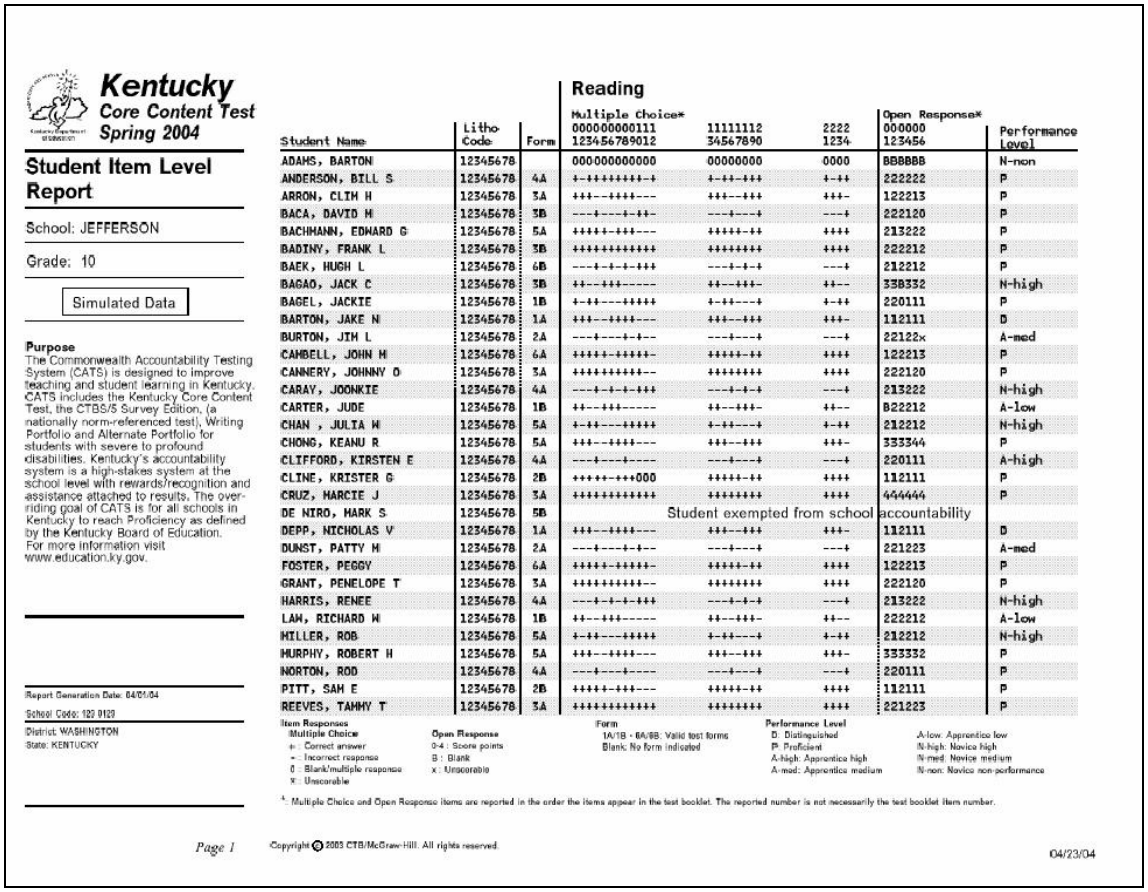
- Cover Page & Intro.
- Accountability Cycle 2004
- Disaggregation Index Trends
- Content Area Index Trends
- Academic Index Comparisons
- Cluster of Eight (8) Content Domain Reports
- NRT
- NRT Disaggregation

Individual

- Individual Student
- Student Listing
- ***Item Level***

Item Level Report

The Item Level Report (distributed in print) gives each student's score for each question on the Kentucky Core Content Test. An example of the report is presented below. (A table that summarizes the grades and content areas tested, including the number of open-response and multiple-choice questions asked on each of six (6) forms of the Kentucky Core Content Test, can be viewed in the Kentucky Core Content Test section of this Interpretive Guide.) A **single content area** is reported per page to make individual content area analyses easier.



Kentucky
Core Content Test
Spring 2004

Student Item Level Report

School: JEFFERSON

Grade: 10

Simulated Data

Purpose
The Commonwealth Accountability Testing System (CATS) is designed to improve teaching and student learning in Kentucky. CATS includes the Kentucky Core Content Test, the CTBS/5 Survey Edition, (a nationally norm-referenced test), Writing Portfolio and Alternate Portfolio for students with severe to profound disabilities. Kentucky's accountability system is a high-stakes system at the school level with rewards/recognition and assistance attached to results. The over-riding goal of CATS is for all schools in Kentucky to reach Proficiency as defined by the Kentucky Board of Education. For more information visit www.education.ky.gov.

Report Generation Date: 04/01/04
School Code: 123 0123
District: WASHINGTON
State: KENTUCKY

Reading

Student Name	Litho Code	Form	Multiple Choice* 000000000111 123456789012	11111112 34567890	2222 1234	Open Response* 000000 123456	Performance Level
ADAMS, BARTON	12345678		000000000000	00000000	0000	BBBBBB	N-non
ANDERSON, BILL S	12345678	4A	+-++++++++-+	+-++-+++	+-++	222222	P
ARRON, CLIH H	12345678	5A	+++--+++++---	+++--+++	+++-	122213	P
BACA, DAVID M	12345678	3B	---+---+-++-	---+---+	---+	222120	P
BACHMANN, EDWARD G	12345678	5A	+++++-+++---	++++++++	++++	213222	P
BADINY, FRANK L	12345678	3B	++++++++++++	++++++++	++++	222212	P
BAEK, HUGH L	12345678	6B	---+-+-+-+++	---+-+-+	---+	212212	P
BAGAO, JACK C	12345678	3B	++--+++-----	++--+++-	++--	33B332	N-high
BAGEL, JACKIE	12345678	1B	+-++---+++++	+-++---+	+-++	220111	P
BARTON, JAKE N	12345678	1A	+++--++++---	+++--+++	+++-	112111	B
BURTON, JIH L	12345678	2A	---+---+-+--	---+---+	---+	22122x	A-med
CAMBELL, JOHN H	12345678	6A	+++++-+++++-	+++++-++	++++	122213	P
CANNERY, JOHNNY O	12345678	3A	++++++++++--	++++++++	++++	222120	P
CARAY, JOONKIE	12345678	4A	---+-+-+-+++	---+-+-+	---+	213222	N-high
CARTER, JUDE	12345678	1B	++--+++-----	++--+++-	++--	B22212	A-low
CHAN , JULIA W	12345678	5A	+-++---+++++	+-++---+	+-++	212212	N-high
CHONG, KEANU R	12345678	5A	+++--++++---	+++--+++	+++-	333344	P
CLIFFORD, KIRSTEN E	12345678	4A	---+---+----	---+---+	---+	220111	A-high
CLINE, KRISTER G	12345678	2B	+++++-+++000	+++++-++	++++	112111	P
CRUZ, MARCIE J	12345678	3A	++++++++++++	++++++++	++++	444444	P
DE NIRO, MARK S	12345678	5B	Student exempted from school accountability				
DEPP, NICHOLAS V	12345678	1A	+++--++++---	+++--+++	+++-	112111	B
DUNST, PATTY M	12345678	2A	---+---+-+--	---+---+	---+	221223	A-med
FOSTER, PEGGY	12345678	6A	+++++-+++++-	+++++-++	++++	122213	P
GRANT, PENELOPE T	12345678	3A	++++++++++--	++++++++	++++	222120	P
HARRIS, RENEE	12345678	4A	---+-+-+-+++	---+-+-+	---+	213222	N-high
LAW, RICHARD W	12345678	1B	++--+++-----	++--+++-	++--	222212	A-low
MILLER, ROB	12345678	5A	+-++---+++++	+-++---+	+-++	212212	N-high
MURPHY, ROBERT H	12345678	5A	+++--++++---	+++--+++	+++-	333332	P
NORTON, ROD	12345678	4A	---+---+----	---+---+	---+	220111	P
PITT, SAM E	12345678	2B	+++++-+++---	+++++-++	++++	112111	P
REEVES, TAMMY T	12345678	3A	++++++++++++	++++++++	++++	221223	P

Item Responses
Multiple Choice
+: Correct answer
-: Incorrect response
0: Blank/multiple response
X: Unscorable

Open Response
0-4: Score points
B: Blank
X: Unscorable

Form
1A/1B - 6A/6B: Valid test forms
Blank: No form indicated

Performance Level
D: Distinguished
P: Proficient
A-high: Apprentice high
A-med: Apprentice medium
A-low: Apprentice low
N-high: Novice high
N-med: Novice medium
N-non: Novice non-performance

*: Multiple Choice and Open Response items are reported in the order the items appear in the test booklet. The reported number is not necessarily the test booklet item number.

Page 1

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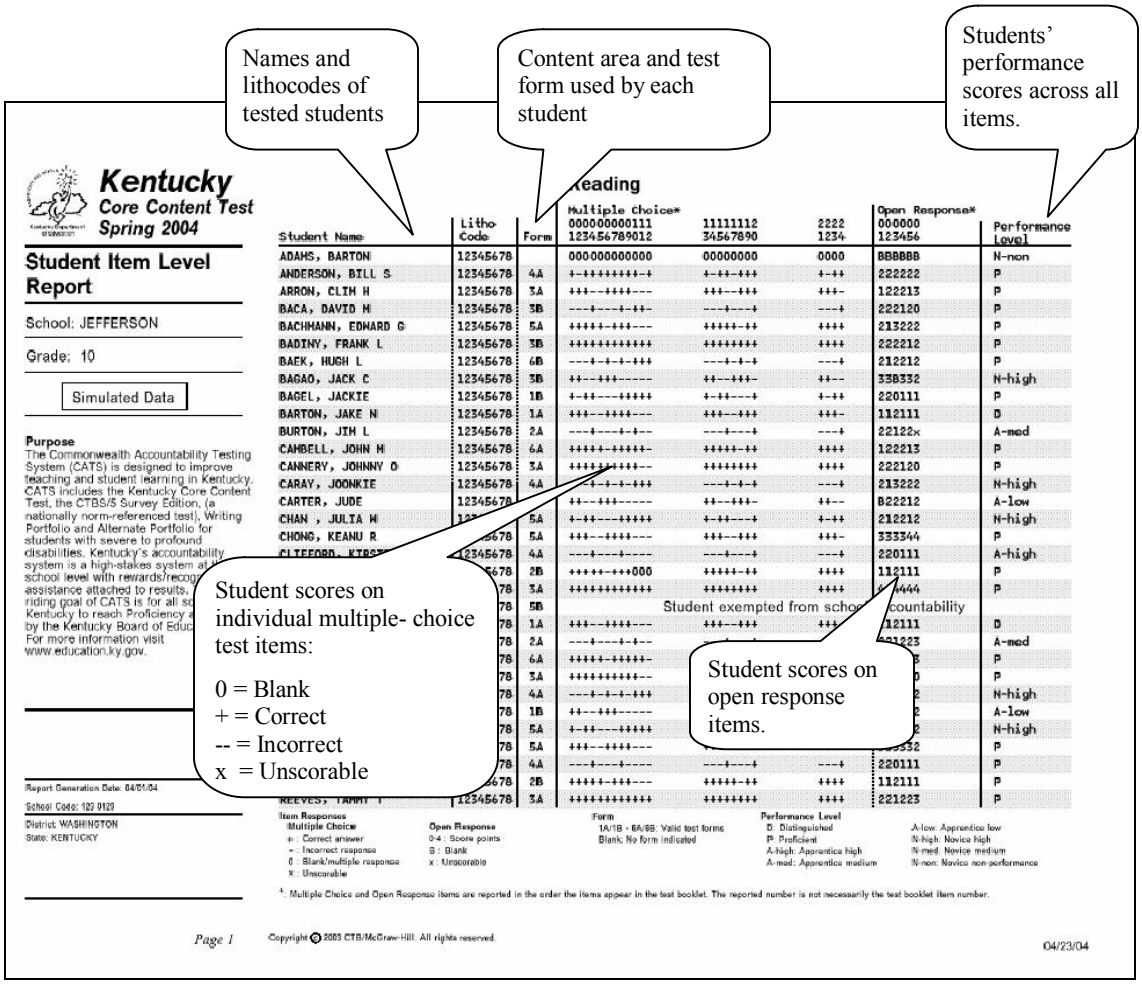

The results for the open-response items reflect how students scored on the 0-4 scale for each item. The multiple-choice items are displayed as correct, incorrect or blank. Note that the question numbers for the items on the report are only in sequential order, as such, these numbers do not necessarily reflect the actual question numbers on the form of the test taken by the student. Item Level Reports are provided for grades 4, 5, 7, 8, 10 and 11. Copies go to the school and the district.

Creating Custom Presentations Using the KPR

In light of the large number and variety of reports available as part of the CATS system, and more specifically the KPR, presenting *all* the available data to stakeholders during a scheduled meeting can be impractical at best, and overwhelming at worst. The *2002 CATS Interpretive Guide* explores several alternatives to presenting the entire KPR to three important groups: School Boards, SBDMs and the lay public, as well as an overview of *Acrobat Reader 5.05.* The suggestions are applicable to 2004 data. Please refer to the *2002 CATS Interpretive Guide* for more detail.

Appendix A

N/A/P/D Cut-Points

N/A/P/D CUT-POINTS IN KCCT SCALE SCORE UNITS

READING

Performance Standard Cut-Points*	Elem. School	Mid. School	High School
Nov Non/M	326	326	326
Nov M/H	451	426	411
Nov H/App	514	477	454
App L/M	523	488	482
App M/H	532	500	509
App H/Pro	541	511	537
Pro/Dis	601	561	584

MATHEMATICS

Performance Standard Cut-Points*	Elem. School	Mid. School	High School
Nov Non/M	326	326	326
Nov M/H	472	454	457
Nov H/App	546	518	523
App L/M	556	530	535
App M/H	565	543	546
App H/Pro	575	555	558
Pro/Dis	619	584	592

SCIENCE

Performance Standard Cut-Points*	Elem. School	Mid. School	High School
Nov Non/M	326	326	326
Nov M/H	450	434	458
Nov H/App	512	489	525
App L/M	526	498	537
App M/H	540	508	550
App H/Pro	554	517	562
Pro/Dis	588	540	608

SOCIAL STUDIES

Performance Standard Cut-Points*	Elem. School	Mid. School	High School
Nov Non/M	326	326	326
Nov M/H	458	430	446
Nov H/App	524	482	506
App L/M	531	499	530
App M/H	539	516	553
App H/Pro	546	533	577
Pro/Dis	586	580	621

ARTS & HUMANITIES

Performance Standard Cut-Points*	Elem. School	Mid. School	High School
Nov Non/Nov	326	326	326
Nov /App	503	478	491
App/Pro	575	529	554
Pro/Dis	631	610	598

PRACTICAL LIVING /VOC. STUDIES

Performance Standard Cut-Points*	Elem. School	Mid. School	High School
Nov Non/Nov	326	326	326
Nov/App	460	466	458
App/Pro	507	520	506
Pro/Dis	588	570	578

***Labels of cut-points separating the performance-standard levels in the above tables are abbreviated as follows :**

Novice Non-Performance is 325 in all content areas
Nov Non/M = Novice Non-Performance /Novice Medium
Nov M/H = Novice Medium/Novice High
Nov H/App = Novice High/Apprentice
App L/M = Apprentice Low/Apprentice Medium
App M/H = Apprentice Medium/Apprentice High
App/Pro = Apprentice High/Proficient
Pro/Dis = Proficient/Distinguished

Appendix B

Glossary

Spring 2004 Commonwealth Accountability Testing System
Individual Student Report

Glossary

Spring 2004 Commonwealth Accountability Testing System
Individual Student Report

Spring 2004 Commonwealth Accountability Testing System - The testing/assessment program used to test/assess the progress being made by Kentucky schools. The program is made up of five parts:

1) Kentucky Core Content Tests at grades 4, 5, 7, 8, 10, 11 and 12
2) Writing Portfolios at grades 4, 7 and 12
3) Alternate Portfolios at grades 4, 8 and last anticipated year
4) Non-academic index, which includes:
   - Attendance and retention at the elementary level.
   - Attendance, retention and dropout rates at the middle school level.
   - Attendance, retention, dropout rates and successful transition to adult life at the high school level.
5) Norm-Referenced Tests assessing reading, language arts and mathematics at the end of Primary, grades 6 and 9.

The Kentucky Core Content Test, Norm-Referenced Tests and Writing and Alternate Portfolios produce individual student information. Non-academic data components produce data only at the school and district level.

NAPD Descriptions - The following are summaries of the language used to describe Novice, Apprentice, Proficient, and Distinguished. These categories are used in reporting student results within the Commonwealth Accountability Testing System. The Proficient level is the CATS goal for all students. *For more explicit and detailed descriptions it is best to consult the descriptions for each particular grade level and content area.* These descriptions can be found on the Kentucky Department of Education's (KDE) website at http://www.education.ky.gov.

Novice
* Student demonstrates minimal, limited, underdeveloped, and at times inaccurate content knowledge and reasoning.
* Student communication is ineffective and lacks detail with no evidence of connections within or between content areas.
* Student uses strategies that are inappropriate.

Apprentice
* Student demonstrates some basic content knowledge and reasoning ability.
* Student communicates reasonably well but draws weak conclusions or only partially solves or describes.
* Student attempts appropriate strategies with limited success.

Proficient * Student demonstrates broad content knowledge and is able to apply it.
* Student communication is accurate, clear, and organized with relevant details and evidence.
* Student uses appropriate strategies to solve problems and make decisions.
* Student demonstrates effective use of critical thinking skills.

Distinguished * Student demonstrates an in-depth, extensive, or comprehensive knowledge of content.
* Student communication is complex, concise, and sophisticated with thorough support, explicit examples, evaluations, and justifications.
* Student uses and consistently implements a variety of appropriate strategies.
* Student demonstrates insightful connections and reasoning.

To communicate a more specific indication of how close a student's work is to the next performance level, for reporting purposes in reading, mathematics, science and social studies, the Performance Levels of Novice and Apprentice are subdivided into the following categories:

- Novice Non-performance
- Novice Medium
- Novice High
- Apprentice Low
- Apprentice Medium
- Apprentice High

Performance Levels are derived for the Kentucky Core Content Test by taking a weighted sum of the performances on open-response and multiple-choice items and converting it to an appropriate Performance Level. Performance levels are derived from student Writing Portfolios through a process of training local school staff to apply the scoring standards to the portfolio as a whole in a consistent manner. Alternate Portfolios are scored at the regional level by trained teachers from neighboring districts.

Scoring Guides - These are guides that are used to score student answers. For open-response questions, a different guide is developed for each question. Additional guides are developed for Writing Portfolios and Alternate Portfolios.

Kentucky Core Content Test - This is the test taken by students in grades 4, 5, 7, 8, 10,11 and 12 in the spring of the school year. At grades 4 and 7, this test contains open-response (essay-like) and multiple-choice questions in reading and science. It also has two writing questions (prompts); students select and write a response to one of those prompts. At grades 5 and 8 the test contains open-response and multiple-choice questions in mathematics, social studies, arts & humanities and practical living/vocational studies. At grade 10 the test contains open-response and multiple-choice questions in reading and practical living/vocational studies. At grade 11 the test contains open-response and multiple-choice questions in mathematics, science, social studies and arts & humanities. At grade 12 the test has two writing questions (prompts); students select and write a response to one of those prompts.

Portfolios - These are collections of each student's best work. Writing and Alternate Portfolios are developed over time as part of the accountability program in the following grades:

Writing Portfolios	grades 4, 7 and 12
Alternate Portfolios	grades 4, 8 and last anticipated year

The Alternate Portfolio refers to a measurement process used with students generally thought to have severe disabilities and who are not able to participate within the normal curriculum, even when they are provided all possible accommodations and adaptive devices available. This portfolio program typically involves less than 1% of the total student population.

Kentucky Percentile Rank - This number describes how a student performed on the test compared to other Kentucky students who took the same test in the same year. For example, if a fourth grade student's Kentucky Percentile Rank in reading is 53, 53% of the Kentucky fourth grade students who took the reading test in the same year scored lower than or equal to the student.

Standard Error of Measurement – One way to think about the standard error of measurement is to think about a test score as being a single score contained within a range of other possible scores. For example, if you had taken the same test or a different version of the test on another day, your scores would likely vary. Most of the time your scores would fall within several percentile points of your true abilities. If it were possible to re-test a student on the same or a different test numerous times, the student would usually score within a band of scores defined by the current score plus/minus *one* standard error of measurement. If one were to consider a score range defined by the current score plus/minus *one* standard error of measure, the student would score within this range approximately 65% of the time. The score range gives a more complete picture of a student's score possibilities. Educators know this, and in fact, specifically ask that score ranges be included with scores. The *standard error of measurement* is a standardized statistic used by test developers to indicate the measurement accuracy of an assessment. Standard errors of measurement are used with the Kentucky Core Content Test, as well as many other tests, including tests like the ACT and SAT.

Score Range *(Graphically displayed around student Kentucky Percentile Ranks)* - On the Individual Student Reports, a student's Kentucky Percentile Rank is graphed as a point surrounded by a bar. The point is the Kentucky Percentile Rank. The bar is the *score range*. The point and the bars represent the student's score plus/minus one *standard error of measurement* (see definition above). The bars around a student's score in each subject show the range of scores the student would likely have received if he/she had taken the same test, or a different version of the test, on another day. It should be noted that all tests contain measurement error for a variety of reasons, including environmental factors (e.g., testing conditions) and student factors (e.g., fatigue, stress). Because of this, any student level score should be interpreted as representing a range of possible scores, or a *score range*.